

TITLE 15A – DEPARTMENT OF ENVIRONMENTAL QUALITY

Notice is hereby given in accordance with G.S. 150B-21.2 and G.S. 150B-21.3A(c)(2)g. that the Environmental Management Commission intends to adopt the rules cited as 15A NCAC 02H .1018, .1019; .1021; .1031; .1040-.1045; .1050-.1062, readopt with substantive changes the rules cited as 15A NCAC 02H .0150-.0154; 02H .1001-.1003; .1005-.1017; .1020, and readopt without substantive changes the rule cited as 15A NCAC 02H .0126.

Pursuant to G.S. 150B-21.2(c)(1), the text of the rule(s) proposed for readoption without substantive changes are not required to be published. The text of the rules are available on the OAH website: <http://reports.oah.nc.us/ncac.asp>.

Link to agency website pursuant to G.S. 150B-19.1(c): <http://portal.ncdenr.org/web/guest/event-calendar>

Proposed Effective Date: September 1, 2016

Public Hearing:

Date: March 7, 2016

Time: 6:00 p.m.

Location: New Bern-Craven County Public Library, 400 Johnson St, New Bern, NC 28560

Public Hearing:

Date: March 21, 2016

Time: 6:00 p.m.

Location: The Charles Mack Citizens Center, 215 N. Main St, Mooresville, NC 28115

Public Hearing:

Date: March 23, 2016

Time: 6:00 p.m.

Location: Ground Flr. Hearing Room, Archdale Building, 512 N. Salisbury St, Raleigh, NC 27604

Reason for Proposed Action: This package of rules has been proposed by the Environmental Management Commission to meet the requirements of G.S. 150B-21.3A "Periodic Review and Expiration of Existing Rules" and Session Law 2013-82 "Fast-Track Permitting for Stormwater Management Systems." See attached summary table for information about individual rules.

Proposed Stormwater Rules – 15A NCAC 2H 1/20/2016		
Rule Name	Proposed Action	Notes/Source of Rule Language
2H .0126 Stormwater Discharges	Readopt w/o Substantive Changes	<ul style="list-style-type: none">Minimal changes
2H.0150 Definitions: NPDES MS4 Stormwater	Readopt w/ Substantive Changes	<ul style="list-style-type: none">Minimal changes
2H .0151 NPDES MS4 Stormwater: Designation and Petition Process	Readopt w/ Substantive Changes	<ul style="list-style-type: none">Minimal changes
2H .0152 Development in Urbanizing Areas	Readopt as a Repeal	<ul style="list-style-type: none">Proposed for repeal because is duplicative of 2H .1016
2H .0153 NPDES MS4 Stormwater: Program Implementation	Readopt w/ Substantive Changes	<ul style="list-style-type: none">Minimal changesAdds .0153(f) to incorporate requirement from S.L. 2014-1 allowing DOT BMP Toolbox for linear transportation projects

2H.0154 Post-Construction Practices	Readopt as a Repeal	<ul style="list-style-type: none"> Proposed for repeal because is duplicative of 2H .1017
2H .1001 Post-Construction Stormwater Management: Purpose and Scope	Readopt w/ Substantive Changes	<ul style="list-style-type: none"> Reorganized Adds items on stormwater program applicability and vested rights
2H .1002 Definitions	Readopt w/ Substantive Changes	<ul style="list-style-type: none"> Streamlines definitions that duplicate statute Strikes unnecessary definitions Adds definitions, including new terms “Minimum Design Criteria” (or “MDC”) and “Stormwater Control Measure” (or “SCM”)
2H .1003 Requirements that Apply to All Subject Projects	Readopt w/ Substantive Changes	<ul style="list-style-type: none"> Based on MDC Team deliberations Codifies method for calculating project density Makes requirements for low and high density projects, vegetated setbacks, etc. consistent across programs
2H .1005 Stormwater Requirements: Coastal Counties	Readopt as a Repeal	<ul style="list-style-type: none"> Req’ts of 2H .1005 updated and moved to 2H .1019
2H .1006 Stormwater Requirements: HW	Readopt as a Repeal	<ul style="list-style-type: none"> Req’ts of 2H .1006 updated and moved to 2H .1021
2H .1007 Stormwater Requirements: ORW	Readopt as a Repeal	<ul style="list-style-type: none"> Req’ts of 2H .1007 updated and moved to 2H .1021
2H .1008 Design of Stormwater Management Measures	Readopt as a Repeal	<ul style="list-style-type: none"> Req’ts of 2H .1008 updated and moved to following proposed rules: 2H .1001; .1003; .1031; 1040; .1042; .1050; .1051; .1053; .1059
2H .1009 Staff Review and Permit Preparation	Readopt as a Repeal	<ul style="list-style-type: none"> Req’ts of 2H .1009 updated and moved to 2H .1042(3)
2H .1010 Final Action on Permit Applications	Readopt as a Repeal	<ul style="list-style-type: none"> Req’ts of 2H .1010 updated and moved to 2H .1042(3) Also reference 2H .1040
2H .1011 Modification and Revocation of Permits	Readopt as a Repeal	<ul style="list-style-type: none"> Req’ts of 2H .1011 updated and moved to 2H .1040(6)
2H .1012 Delegation of Authority	Readopt as a Repeal	<ul style="list-style-type: none"> Req’ts of 2H .1012 updated and moved to 2H .1040(3)

2H .1013 General Permits	Readopt as a Repeal	<ul style="list-style-type: none"> ▪ Req'ts of 2H .1013 updated and moved to 2H .1041
2H .1014 Stormwater Management for Urbanizing Areas	Readopt as a Repeal	<ul style="list-style-type: none"> ▪ Proposed for repeal because is covered in 2H .0100s and 2H .1016 -.1018
2H .1015 Development in Urbanizing Areas	Readopt as a Repeal	<ul style="list-style-type: none"> ▪ Proposed for repeal because is duplicative of 2H .0150
2H .1016 Development in Urbanizing Areas: Applicability and Delineation	Readopt w/ Substantive Changes	<ul style="list-style-type: none"> ▪ Strikes .1016(c) (designation of regulated entities) b/c is covered in 2H .0151 ▪ .1016(a)(4) moved to .1016(a)(1)(E) ▪ Moves .1016(d) (delegation), to its own new rule 2H .1018
2H .1017 NPDES and Urbanizing Areas: Post-Construction Stormwater Management	Readopt w/ Substantive Changes	<ul style="list-style-type: none"> ▪ .1017(2) Allows newer rules (Jordan, Falls, Coastal, Goose Creek, USMP) to satisfy stormwater requirements ▪ 2H .1017(5) adds voluntary option to allow SCMs designed to achieve runoff volume match instead of runoff treatment criteria
2H .1018 Urbanizing Areas: Delegation of Stormwater Management Program	Adopt	<ul style="list-style-type: none"> ▪ New rule; language from 2H .1016(d)
2H .1019 Coastal Counties	Adopt	<ul style="list-style-type: none"> ▪ Includes req'ts previously located in 2H .1005 ▪ Based on MDC Team deliberations ▪ Improves organization of coastal programs ▪ Updates technical standards for avoiding discharges of stormwater in SA waters ▪ Reduces the size of the design storm in SA waters but increases the size of the design storm in regular coastal waters
2H .1020 Universal Stormwater Management Program	Readopt w/ Substantive Changes	<ul style="list-style-type: none"> ▪ .1020(f) adds voluntary option to allow SCMs designed to achieve runoff volume match as an alternative to runoff treatment
2H .1021 Non-Coastal County HQW and ORW	Adopt	<ul style="list-style-type: none"> ▪ Req'ts previously located in 2H .1006 and .1007 ▪ Combines Non-Coastal County HQW and ORW programs because the existing requirements were very similar ▪ .1021(7) adds a requirement for 30-foot vegetated setback for high density development ▪ .1021(5) adds option to allow for single-family residential projects to qualify as low density if meet average lot size criteria over the entire project rather than minimum lot size for each lot
2H .1031 New Stormwater Technologies Program	Adopt	<ul style="list-style-type: none"> ▪ Codifies and updates the requirement for the new stormwater technologies program (formerly the "PEP")

2H .1040 Permit Administration	Adopt	<ul style="list-style-type: none"> ▪ Req'ts previously located in 2H .1008; .1010-.1012 ▪ Updates and organizes the process for stormwater permit administration and signatures on permit applications
2H .1041 General Permits	Adopt	<ul style="list-style-type: none"> ▪ Req'ts previously located in 2H .1013 ▪ Minimal changes
2H .1042 Standard Permitting Process	Adopt	<ul style="list-style-type: none"> ▪ Req'ts previously located in 2H .1008-.1010 ▪ Updates and organizes standard permitting process
2H .1043 Fast Track Permitting Process: Authorization to Construct	Adopt	<ul style="list-style-type: none"> ▪ New permitting process ▪ Based on MDC Team deliberations ▪ Creates Step #1 of the fast-track permitting process
2H .1044 Fast Track Permitting Process: Final Permit	Adopt	<ul style="list-style-type: none"> ▪ New permitting process ▪ Based on MDC Team deliberations ▪ Creates Step #2 of the fast-track permitting process
2H .1045 Requirements for Permit Transfers and Renewals	Adopt	<ul style="list-style-type: none"> ▪ Req'ts previously located in 2H .1003, .1010 ▪ Codifies policies for permit transfers and renewals ▪ .1045(3)(f) allows a licensed professional to certify that the SCM has been inspected, and that it was found to be built and maintained in accordance with the approved plans
2H .1050 MDC for all Stormwater Control Measures	Adopt	<ul style="list-style-type: none"> ▪ Includes req'ts previously located in 2H .1008 ▪ Organizes MDCs that apply to all SCMs in one rule ▪ Based on MDC Team deliberations; a number of design elements that the MDC team agreed are necessary to ensure that SCMs meet the current 85% TSS removal requirements, such as having a bypass device for larger flow events and protecting inlet and outlet structures against erosion, are proposed to be codified in 2H .1050
2H .1051 MDC for Infiltration Systems	Adopt	<ul style="list-style-type: none"> ▪ Includes req'ts previously located in 2H .1008 ▪ Based on MDC Team deliberations ▪ Updates and organizes current design standards for this type of SCM
2H .1052 MDC for Bioretention Cells	Adopt	<ul style="list-style-type: none"> ▪ Based on MDC Team deliberations ▪ Updates and organizes current design standards for this type of SCM
2H .1053 MDC for Wet Ponds	Adopt	<ul style="list-style-type: none"> ▪ Req'ts previously located in 2H .1008 ▪ Based on MDC Team deliberations ▪ Updates and organizes current design standards for this type of SCM
2H .1054 MDC for Stormwater Wetlands	Adopt	<ul style="list-style-type: none"> ▪ Based on MDC Team deliberations ▪ Updates and organizes current design standards for this type of SCM

2H .1055 MDC for Permeable Pavement	Adopt	<ul style="list-style-type: none"> Based on MDC Team deliberations Updates and organizes current design standards for this type of SCM
2H .1056 MDC for Sand Filters	Adopt	<ul style="list-style-type: none"> Based on MDC Team deliberations Updates and organizes current design standards for this type of SCM
2H .1057 MDC for Rainwater Harvesting	Adopt	<ul style="list-style-type: none"> Based on MDC Team deliberations Updates and organizes current design standards for this type of SCM
2H .1058 MDC for Green Roofs	Adopt	<ul style="list-style-type: none"> Based on MDC Team deliberations Updates and organizes current design standards for this type of SCM
2H .1059 MDC for Level Spreader-Filter Strips	Adopt	<ul style="list-style-type: none"> Based on MDC Team deliberations Updates and organizes current design standards for this type of SCM
2H .1060 MDC for Disconnected Impervious Surfaces	Adopt	<ul style="list-style-type: none"> Based on MDC Team deliberations Updates and organizes current design standards for this type of SCM
2H .1061 MDC for Treatment Swales	Adopt	<ul style="list-style-type: none"> Based on MDC Team deliberations Updates and organizes current design standards for this type of SCM
2H .1062 MDC for Dry Ponds	Adopt	<ul style="list-style-type: none"> Based on MDC Team deliberations Updates and organizes current design standards for this type of SCM

Comments may be submitted to: *Annette Lucas, NCDENR-Land Quality Section-Stormwater Permitting Program, 1612 Mail Service Center, Raleigh, NC 27699-1612, phone (919) 807-6381, fax (919) 807-6494, email annette.lucas@ncdenr.gov*

Comment period ends: *April 15, 2016*

Procedure for Subjecting a Proposed Rule to Legislative Review: If an objection is not resolved prior to the adoption of the rule, a person may also submit written objections to the Rules Review Commission after the adoption of the Rule. If the Rules Review Commission receives written and signed objections after the adoption of the Rule in accordance with G.S. 150B-21.3(b2) from 10 or more persons clearly requesting review by the legislature and the Rules Review Commission approves the rule, the rule will become effective as provided in G.S. 150B-21.3(b1). The Commission will receive written objections until 5:00 p.m. on the day following the day the Commission approves the rule. The Commission will receive those objections by mail, delivery service, hand delivery, or facsimile transmission. If you have any further questions concerning the submission of objections to the Commission, please call a Commission staff attorney at 919-431-3000.

Fiscal impact (check all that apply).

- ☐ State funds affected
- ☐ Environmental permitting of DOT affected
- ☐ Analysis submitted to Board of Transportation
- ☐ Local funds affected
- ☐ Substantial economic impact (\geq \$1,000,000)
- ☐ Approved by OSBM
- ☒ No fiscal note required by G.S. 150B-21.4
- ☒ No fiscal note required by G.S. 150B-21.3A(d)(2)

CHAPTER 02 – ENVIRONMENTAL MANAGEMENT

SUBCHAPTER 02H - PROCEDURES FOR PERMITS: APPROVALS

SECTION .0100 - POINT SOURCE DISCHARGES TO THE SURFACE WATERS

15A NCAC 02H .0126 STORMWATER DISCHARGES (READoption WITHOUT SUBSTANTIVE CHANGES)

15A NCAC 02H .0150 DEFINITIONS: NPDES MS4 STORMWATER

Federal definitions for NPDES discharges at 40 C.F.R. 122.2 and 122.26(b)(1 July 2003 Edition) are incorporated herein by reference including any subsequent editions. These federal regulations can be accessed at no cost at <http://www.gpo.gov/fdsys/>. The definition of any word or phrase used in the NPDES municipal separate storm sewer system (MS4) stormwater program shall be the same as given in Rule .1002 of this Subchapter. Other words and phrases are defined as follows:

- (1) "Division" means the Division of Energy, Mineral, and Land Resources in the Department.
- (2) "MS4" means municipal separate storm sewer system.
- (3) "Planning jurisdiction" means the territorial jurisdiction within which a municipality exercises the powers authorized by Article 19 of Chapter 160A of the General Statutes, or a county exercises the powers authorized by Article 18 of Chapter 153A of the General Statutes.
- (4) "Public entity" means the United States, the State, a city, village, township, county, school district, public college or university, single-purpose governmental agency, or any other governing body that is created by federal or State law.
- (5) "Regulated entity" means any public entity that must obtain a National Pollutant Discharge Elimination System (NPDES) permit for stormwater management for its municipal separate storm sewer system (MS4).
- (6) "Sensitive receiving waters" means any of the following:
 - (a) Waters that are classified as high quality, outstanding resource, shellfish, trout, or nutrient sensitive waters in accordance with 15A NCAC 02B .0101, 15A NCAC 02B .0200, and 15A NCAC 02B .0301.
 - (b) Waters that are occupied by or designated as critical habitat for aquatic animal species that are listed as threatened or endangered by the United States Fish and Wildlife Service or the National Marine Fisheries Service under the provisions of the Endangered Species Act of 1973 (Pub. L. No. 93-205; 87 Stat. 884; 16 U.S.C. § 1531, et seq.), as amended.
 - (c) Waters for which the "best usage," as described by the classification system set forth in 15A NCAC 02B .0101, 15A NCAC 02B .0200, and 15A NCAC 02B .0301 have been determined to be impaired in accordance with the requirements of subsection (d) of 33 U.S.C. §§ 1313. This federal code can be accessed at no cost at <http://www.gpo.gov/fdsys/>.
- (7) "Significant contributor of pollutants" means a municipal separate storm sewer system (MS4) or a discharge that contributes to the pollutant loading of a water body or that destabilizes the physical structure of a water body such that the contribution to pollutant loading or the destabilization may be expected to have an adverse impact on the quality and best usage of the water body. "Best usage" of a water body shall be determined pursuant to 15A NCAC 02B .0211 through 15A NCAC 02B .0222 and 15A NCAC 02B .0300, et seq.
- (8) "Total maximum daily load (TMDL) implementation plan" means a written, quantitative plan, and analysis for attaining and maintaining water quality standards in all seasons for a specific water body and pollutant.

Authority G.S. 143-213; 143-214.1; 143-214.7; 143-215.3(a)(1).

15A NCAC 02H .0151 NPDES MS4 STORMWATER: DESIGNATION AND PETITION PROCESS

(a) Designation of Regulated Entities. A public entity that owns or operates a municipal separate storm sewer system (MS4) may be designated as a regulated entity through federal designation, through the State designation process, or under a total maximum daily load (TMDL) implementation plan, as provided in this Paragraph.

- (1) Federal designation. A public entity that owns or operates a municipal separate storm sewer system (MS4) may be designated as a regulated entity pursuant to 40 CFR § 122.32. These federal regulations are available at no cost at <http://www.gpo.gov/fdsys/>.
- (2) State designation process. The Commission shall designate a public entity that owns or operates a municipal separate storm sewer system (MS4) as a regulated entity as provided in Subparagraphs (2)(A) through (F) below:
 - (A) Designation schedule. The Commission shall implement the designation process in accordance with the schedule for review and revision of basinwide water quality management plans as provided in G.S. 143-215.8B(c).
 - (B) Identification of candidate regulated entities. The Commission shall identify a public entity as a candidate for designation as a regulated entity if the municipal separate storm sewer system (MS4) either:
 - (i) discharges stormwater that has the potential to have an adverse impact on water quality; or
 - (ii) serves a public entity that has not been designated pursuant to Item (1) of this Paragraph and that has either a population of more than 10,000 or more than 4,000 housing units, and either a population density of 1,000 people per square mile or more or more than 400 housing units per square mile.
 - (C) Notice and comment on candidacy. The Commission shall notify each public entity identified as a candidate for designation as a regulated entity. After notification of each public entity, the Commission shall publish a list of all public entities within a river basin that have been identified as candidates for designation. This list shall be published on the Division website at <http://portal.ncdenr.org/web/lr/stormwater>. The

Commission shall accept public comment on the proposed designation of a public entity as a regulated entity for a period of not less than 30 days from the date of publication.

- (D) Designation of regulated entities. After review of the public comment, the Commission shall make a determination on designation for each of the candidate public entities. The Commission shall designate a candidate public entity that owns or operates a municipal separate storm sewer system (MS4) as a regulated public entity only if the Commission determines either that:

- (i) the public entity has an actual population growth rate that exceeds 1.3 times the State population growth rate for the previous 10 years;
- (ii) the public entity has a projected population growth rate that exceeds 1.3 times the projected State population growth rate for the next 10 years;
- (iii) the population of the public entity is more than 15 percent greater than its population two years prior to the publication of the list identifying the public entity as a candidate for designation.
- (iv) the municipal separate storm sewer system (MS4) discharges stormwater that has adverse impacts on water quality; or
- (v) the municipal separate storm sewer system (MS4) discharges stormwater that results in a significant contribution of pollutants to receiving waters, taking into account the effectiveness of other applicable water quality protection programs. To determine the effectiveness of other applicable water quality protection programs, the Commission shall consider the water quality of the receiving waters and whether the waters support the best usages.

- (E) Notice of designation. The Commission shall provide written notice to each public entity of its designation determination. For a public entity designated as a regulated entity, the notice shall state the basis for the designation and the date on which an application for a NPDES permit for stormwater management shall be submitted to the Commission.

- (F) Application schedule. A public entity that has been designated as a regulated entity pursuant to this subdivision shall submit its application for a NPDES permit for stormwater management within 18 months of the date of notification.

- (3) Designation under a total maximum daily load (TMDL) implementation plan. The Commission shall designate an owner or operator of a small municipal separate storm sewer system (MS4) as a regulated entity if the municipal separate storm sewer system (MS4) is specifically listed by name as a source of pollutants for urban stormwater in a total maximum daily load (TMDL) implementation plan developed in accordance with subsections (d) and (e) of 33 U.S.C. § 1313. This federal code is available at no cost at <http://www.gpo.gov/fdsys/>. The Commission shall provide written notice to each public entity of its designation determination. For a public entity designated as a regulated entity, the notice shall state the basis for the designation and the date on which an application for a NPDES permit for stormwater management shall be submitted to the Commission. A public entity that has been designated as a regulated entity pursuant to this Item shall submit its application for a NPDES permit for stormwater management within 18 months of the date of notification.

(b) Petition Process. A petition may be submitted to the Commission to request that an owner or operator of a municipal separate storm sewer system (MS4) or a person who discharges stormwater be required to obtain a NPDES permit for stormwater management as follows:

- (1) Connected discharge petition. An owner or operator of a permitted municipal separate storm sewer system (MS4) may submit a petition to the Commission to request that a person who discharges into the permitted municipal separate storm sewer system (MS4) be required to obtain a separate NPDES permit for stormwater management. The Commission shall grant the petition and require the person to obtain a separate NPDES permit for stormwater management if the petitioner shows that the person's discharge flows or will flow into the permitted municipal separate storm sewer system (MS4).

- (2) Adverse impact petition. Any person may submit a petition to the Commission to request that an owner or operator of a municipal separate storm sewer system (MS4) or a person who discharges stormwater be required to obtain a NPDES permit for stormwater management as follows:

- (A) Petition review. The Commission shall grant the petition and require the owner or operator of the municipal separate storm sewer system (MS4) or the person who discharges stormwater to obtain a NPDES permit for stormwater management if the petitioner shows any of the following:

- (i) The municipal separate storm sewer system (MS4) or the discharge discharges stormwater or has the potential to discharge stormwater that may cause or contribute to a water quality standard violation;
- (ii) The municipal separate storm sewer system (MS4) or the discharge is a significant contributor of pollutants to receiving waters; or
- (iii) The municipal separate storm sewer system (MS4) or the discharge is specifically listed by name as a source of pollutants for urban stormwater in a total maximum daily load (TMDL) implementation plan developed in accordance with subsections (d) and (e) of 33 U.S.C. § 1313.

- (B) Types of evidence for required showing. Petitioners may make the required showing by providing to the Commission the following information:

- (i) monitoring data that includes representative sampling of the municipal separate storm sewer system (MS4) or discharge and information describing how the sampling is representative. The petitioner shall notify the owner or operator of the municipal separate storm sewer system (MS4) or the person

- who discharges stormwater of its intent to conduct monitoring activities prior to conducting those activities;
 - (ii) scientific or technical literature that supports the sampling methods;
 - (iii) studies and technical information on land uses in the drainage area and the characteristics of stormwater runoff from these land uses;
 - (iv) a map that delineates the drainage area of the petitioned entity; the location of sampling stations; the location of the stormwater outfalls in the adjacent area of the sampling locations; general features, including surface waters, major roads, and political boundaries; and areas of concern regarding water quality;
 - (v) for stormwater discharges to impaired waters, documentation that the receiving waters are impaired or degraded and monitoring data that demonstrates that the municipal separate storm sewer system (MS4) or discharge contributes pollutants for which the waters are impaired or degraded; or
 - (vi) for stormwater discharges to nonimpaired waters, monitoring data that demonstrates that the owner or operator of the municipal separate storm sewer system (MS4) or the person who discharges stormwater is a significant contributor of pollutants to the receiving waters.
 - (C) Water quality protection program offset. If the petitioner makes the required showing, the Commission shall review the effectiveness of any existing water quality protection programs that may offset the need to obtain a NPDES permit for stormwater management. To determine the effectiveness of other applicable water quality protection programs, the Commission shall consider the water quality of the receiving waters and whether the waters support the best usages. The Commission may deny the petition if it finds that existing water quality protection programs are adequate to address stormwater impacts on sensitive receiving waters and to ensure compliance with a TMDL implementation plan.
- (3) Petition administration. The Commission shall process petitions in the following manner:
 - (A) A separate petition shall be filed for each municipal separate storm sewer system (MS4) or discharge.
 - (B) The Commission shall evaluate only those petitions that contain all information required by Part (2)(B) of this Paragraph. The Commission shall make a determination on the completeness of a petition within 90 days of receipt of the petition, or it shall be deemed complete. If the Commission requests additional information, the petitioner may submit additional information and the Commission shall determine, within 90 days of receipt of the additional information, whether the information completes the petition.
 - (C) The petitioner shall provide a copy of the petition and a copy of any subsequent additional information submitted to the Commission to the chief administrative officer of the municipal separate storm sewer system (MS4) or the person in control of the discharge within 48 hours of each submittal.
 - (D) The Commission shall post all petitions on the Division website and maintain copies available for inspection at the Division's office. The Commission shall accept and consider public comment for 30 days from the date of posting.
 - (E) The Commission may hold a public hearing on a petition and shall hold a public hearing on a petition if it receives a written request for a public hearing within the public comment period and the determines that there is a significant public interest in holding a public hearing. The Commission's determination to hold a public hearing shall be made no less than 15 days after the close of the public comment period. The Commission shall schedule the hearing to be held within 45 days of the close of the initial public comment period and shall accept and consider additional public comment through the date of the hearing.
 - (F) An additional petition for the same municipal separate storm sewer system (MS4) or discharge received during the public comment period shall be considered as comment on the original petition. An additional petition for the same municipal separate storm sewer system (MS4) or discharge received after the public comment period ends and before the final determination is made shall be considered incomplete and held pending a final determination on the original petition.
 - (i) If the Commission determines that the owner or operator of the municipal separate storm sewer system (MS4) or the person who discharges stormwater is required to obtain a NPDES permit for stormwater management, any other petitions for the same municipal separate storm sewer system (MS4) or discharge that were held shall be considered in the development of the NPDES permit for stormwater management.
 - (ii) If the Commission determines that the owner or operator of the municipal separate storm sewer system (MS4) or the person who discharges stormwater is not required to obtain a NPDES permit for stormwater management, an additional petition for the municipal separate storm sewer system (MS4) or discharge shall present new information or demonstrate that conditions have changed in order to be considered. If new information is not provided, the petition shall be returned as incomplete.
 - (G) The Commission shall evaluate a petition within 180 days of the date on which it is determined to be complete. If the Commission determines that the owner or operator of the municipal separate storm sewer system (MS4) or the person who discharges stormwater is required to obtain a NPDES permit for stormwater management, the Commission shall notify the owner or operator of the municipal separate storm sewer system (MS4) or the person who discharges stormwater within 30 days of the requirement to obtain the permit. The owner or operator of the municipal separate storm sewer system (MS4) or the person who discharges stormwater shall submit its application for a NPDES permit for stormwater management within 18 months of the date of notification.

(c) Exemption. A municipality with a population of less than 1,000, including a municipality designated as an urbanized area under the most recent federal decennial census, is not required to obtain a NPDES permit for stormwater management unless the municipality is shown to be contributing to an impairment of State waters, as determined under the requirements of 33 U.S.C. § 1313(d).

(d) Waiver. The Department may waive the requirement for a NPDES permit for stormwater management pursuant to 40 CFR §§ 122.32(d) or (e).

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1).

15A NCAC 02H .0152 DEVELOPMENT IN URBANIZING AREAS

~~(a) Development in Unincorporated Areas of Counties.~~

- ~~(1) Development that cumulatively disturbs one acre or more of land located in the unincorporated area of a county shall comply with the standards set forth in Rule .0154 of this Section beginning 1 July 2007 if the development is located in:~~
 - ~~(A) An area that is designated as an urbanized area under the most recent federal decennial census.~~
 - ~~(B) The unincorporated area of a county outside of a municipality designated as an urbanized area under the most recent federal decennial census that extends:~~
 - ~~(i) One mile beyond the corporate limits of a municipality with a population of less than 10,000 individuals;~~
 - ~~(ii) Two miles beyond the corporate limits of a municipality with a population of 10,000 or more individuals but less than 25,000 individuals; and~~
 - ~~(iii) Three miles beyond the corporate limits of a municipality with a population of 25,000 or more individuals.~~
 - ~~(C) An area delineated pursuant to Item (2) of this Paragraph.~~
 - ~~(D) A county that contains an area that is designated as an urbanized area under the most recent federal decennial census in which the unduplicated sum of: (i) the area that is designated as an urbanized area under the most recent federal decennial census; (ii) the area described in Subparagraph (1)(B) of this Paragraph; (iii) the area delineated pursuant to Item (2) of this Paragraph; (iv) the jurisdiction of a regulated entity designated pursuant to Rule .0151(a) of this Section; (v) the area that is regulated by a Phase II National Pollutant Discharge Elimination System (NPDES) permit for stormwater management required pursuant to Rule .0151(b) of this Section; and (vi) areas in the county that are subject to any of the stormwater management programs administered by the Division equal or exceed 75 percent of the total geographic area of the county. For purposes of this Paragraph, the stormwater programs administered by the Division are:~~
 - ~~(i) Water Supply Watershed I (WS I) 15A NCAC 02B .0212;~~
 - ~~(ii) Water Supply Watershed II (WS II) 15A NCAC 02B .0214;~~
 - ~~(iii) Water Supply Watershed III (WS III) 15A NCAC 02B .0215;~~
 - ~~(iv) Water Supply Watershed IV (WS IV) 15A NCAC 02B .0216;~~
 - ~~(v) High Quality Waters (HQW) 15A NCAC 02H .1006;~~
 - ~~(vi) Outstanding Resource Waters (ORW) 15A NCAC 02H .1007;~~
 - ~~(vii) The Coastal Stormwater Program 15A NCAC 02H .1005;~~
 - ~~(viii) The Neuse River Basin Nutrient Sensitive Waters (NSW) Management Strategy 15A NCAC 02B .0235;~~
 - ~~(ix) The Tar Pamlico River Basin Nutrient Sensitive (NSW) Management Strategy 15A NCAC 02B .0258;~~
 - ~~(x) The Randleman Lake Water Supply Watershed Nutrient Management Strategy 15A NCAC 02B .0251; and~~
 - ~~(xi) Other Environmental Management Commission Nutrient Sensitive Waters (NSW) Classifications 15A NCAC 02B .0223.~~
 - ~~(E) Subject to Subparagraph (4) of this Paragraph, a county that contains an area that is designated as an urbanized area under the 1990 or 2000 federal decennial census and that has an actual population growth rate that exceeded the State population growth rate for the period 1995 through 2004.~~
- ~~(2) Delineation Process. The Commission shall delineate regulated coverage areas as provided in Subparagraphs (2)(A) through (F) below:~~
 - ~~(A) Schedule. The Commission shall implement the delineation process in accordance with the schedule for review and revision of basinwide water quality management plans as provided in G.S. 143-215.8B(e).~~
 - ~~(B) Potential candidate coverage areas. A potential candidate coverage area is the unincorporated area of a county that is outside a municipality designated as a regulated entity pursuant to Rule .0151(a) of this Section that:~~
 - ~~(i) Extends one mile beyond the corporate limits of a municipality with a population of less than 10,000 individuals;~~
 - ~~(ii) Extends two miles beyond the corporate limits of a municipality with a population of 10,000 or more individuals but less than 25,000 individuals; and~~
 - ~~(iii) Extends three miles beyond the corporate limits of a municipality with a population of 25,000 or more individuals.~~
 - ~~(C) Identification of candidate coverage areas. The Commission shall identify an area within a potential candidate coverage area described in Part (2)(B) of this Paragraph as a candidate coverage area if the~~

~~discharge of stormwater within or from the unincorporated area has the potential to adversely impact water quality. An adverse impact on water quality includes any activity that violates water quality standards, including, but not limited to, any activity that impairs designated uses or that has a significant biological or habitat impact.~~

~~(D) Notice and comment on candidacy. The Commission shall notify each public entity that is located in whole or in part in a candidate coverage area. After notification of each public entity, the Commission shall publish a map of the unincorporated areas within the river basin that have been identified as candidates for delineation as regulated coverage areas. The Commission shall accept public comment on the proposed delineation of a candidate coverage area as a regulated coverage area for a period of not less than 30 days.~~

~~(E) Delineation of regulated coverage areas. After review of public comment, the Commission shall delineate regulated coverage areas. The Commission shall delineate a candidate coverage area as a regulated coverage area only if the Commission determines that the discharge of stormwater within or from the candidate coverage area either:~~

~~(i) Adversely impacts water quality; or~~

~~(ii) Results in a significant contribution of pollutants to sensitive receiving waters, taking into account the effectiveness of other applicable water quality protection programs. To determine the effectiveness of other applicable water quality protection programs, the Commission shall consider the water quality of the receiving waters and whether the waters support the uses set out in Paragraphs (c), (d), and (e) of 15A NCAC 02B .0101 (Procedures for Assignment of Water Quality Standards - General Procedures) and the specific classification of the waters set out in 15A NCAC 02B .0300, et seq. (Assignment of Stream Classifications).~~

~~(F) Notice of delineation. The Commission shall provide written notice to each public entity that is located in whole or in part in a candidate coverage area of its delineation determination. The notice shall state the basis for the determination.~~

~~(3) Except as provided in this Paragraph and 15A NCAC 02H .1016(d), the Commission shall administer and enforce the standards for development in the regulated coverage areas. To the extent authorized by law, where the development is located in a municipal planning jurisdiction, the municipality shall administer and enforce the standards. A public entity may request that the Commission delegate administration and enforcement of the stormwater management program to the public entity as provided in 15A NCAC 02H .1016(d).~~

~~(4) A county that contains an area that is designated as an urbanized area under the 1990 or 2000 federal decennial census and that has an actual population growth rate that exceeded the State population growth rate for the period 1995 through 2004 is not a county under Part (1)(E) of this Paragraph and is not a county that is subject under this section to the requirements for development in the unincorporated areas of the county when that actual population growth rate occurred in an area within the county that consists of less than five percent of the total land area of the county.~~

~~(b) Development in Non Phase II Incorporated Areas in Certain Counties. Development that cumulatively disturbs one acre or more of land located in the incorporated areas of a county described in Subparagraphs (1)(D) and (E) of Paragraph (a), that are not designated as an urbanized area under the most recent federal decennial census, shall comply with the standards set forth in Rule .0151(a) of this Section of this act beginning 1 July 2007. The Commission shall administer and enforce the standards for development unless the public entity requests that the Commission delegate administration and enforcement of the stormwater management program to the public entity as provided in 15A NCAC 02H .1016(d).~~

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); S.L. 2011-220.

15A NCAC 02H .0153 NPDES MS4 STORMWATER PROGRAM IMPLEMENTATION

(a) Permit Standards. To obtain a NPDES permit for stormwater management, an applicant shall develop, implement, and enforce a stormwater management plan approved by the Commission that satisfies the six "minimum control measures" required by 40 CFR § 122.34(b). These federal regulations can be accessed at no cost at <http://www.gpo.gov/fdsys/>. The evaluation of the post-construction stormwater management measures required by 40 CFR § 122.34(b)(5) shall be conducted as provided in Rule .1017 of this Subchapter. Regulated entities may propose using any existing State or local program that relates to the minimum control measures to meet, either in whole or in part, the requirements of the minimum control measures.

(b) Implementation Schedule. The requirements of this act shall be implemented as follows:

- (1) A regulated entity must apply within 18 months of notification by the Department that the regulated entity is subject to regulation pursuant to Rules .0151(a) and (b) and Rule .1016 of this Subchapter;
- (2) Public education and outreach minimum measures shall be implemented within 12 months from date of permit issuance; (3) A regulated entity shall implement its post-construction program no later than 24 months from the date the permit is issued; and
- (4) The Department shall include permit conditions that establish schedules for implementation of each minimum measure of the regulated entity's stormwater management program based on the submitted application so that the regulated entity fully implements its permitted program within five years from permit issuance.

(c) Federal and State Projects. The Commission shall have jurisdiction, to the exclusion of local governments, to issue a NPDES permit for stormwater management to a federal or State agency that applies to all or part of the activities of the agency or that applies to the particular project. If a federal or State agency does not hold a MS4 NPDES permit for stormwater management that applies to the particular project, then the project shall be subject to the stormwater management requirements of this Rule as implemented by the Commission or by a local government. The provisions of G.S. 153A-347 and G.S. 160A-392 apply to the implementation of this Rule.

(d) General Permit. The Commission shall develop and issue a NPDES general permit for stormwater management. The general permit requirements for post-construction stormwater management measures required by 40 CFR § 122.34(b)(5) shall require a

permittee to meet the standards set forth in Rule .1017 of this Subchapter. After the Commission has issued a National Pollutant Discharge Elimination System (NPDES) general permit for stormwater management, a public entity that has applied for a permit may submit a notice of intent to be covered under the general permit to the Commission. The notice of intent shall be submitted to the Division accompanied by the application fee as set forth in G.S. 143-215.3D. The Commission shall treat an application for a permit as an application for an individual permit unless the applicant submits a notice of intent to be covered under a general permit under this Paragraph.

(e) The exclusions from the requirement to obtain a NPDES permit for stormwater management set out in 40 CFR § 122.3, including the exclusions for certain nonpoint source agricultural and silvicultural activities, apply to the provisions of this Rule.

(f) In order to fulfill the post-construction minimum measure requirement for linear transportation projects, including private transportation projects constructed to North Carolina Department of Transportation standards that will be conveyed to the State upon completion, a permittee, delegated program, or regulated entity may use the Stormwater Best Management Practices Toolbox developed by the North Carolina Department of Transportation and available at no cost at <https://connect.ncdot.gov/resources/hydro/Pages/Stormwater-Program.aspx>.

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); S.L. 2014-1.

15A NCAC 02H .0154 POST-CONSTRUCTION PRACTICES

~~(a) Requirements for Post Construction Practices.~~

- ~~(1) Permittees, delegated programs, and regulated entities must require stormwater controls for a project that disturbs one acre or more of land, including a project that disturbs less than one acre of land that is part of a larger common plan of development or sale. Whether an activity or project that disturbs less than one acre of land is part of a larger common plan of development shall be determined in a manner consistent with the memorandum referenced as "Guidance Interpreting Phase 2 Stormwater Requirements" from the Director of the DWQ of the DENR to Interested Parties dated 24 July 2006. The stormwater controls shall be appropriate to the project's level of density as follows:~~
 - ~~(A) Low Density Option. A project that is located within any of the coastal counties is a low density project if it meets the low density requirements of 15A NCAC 02H .1005. A project that is not located within any of the coastal counties is a low density project if it contains no more than 24 percent built upon area or no more than two dwelling units per acre. Low density projects must use vegetated conveyances to the maximum extent practicable to transport stormwater runoff from the project. On-site stormwater treatment devices such as infiltration areas, bioretention areas, and level spreaders may also be used as added controls for stormwater runoff. A project with an overall density at or below the low density thresholds, but containing areas with a density greater than the overall project density, may be considered low density as long as the project meets or exceeds the requirements of this Subparagraph (1)(A) and locates the higher density development in upland areas and away from surface waters and drainageways to the maximum extent practicable.~~
 - ~~(B) High Density Option. A project that is located within any of the coastal counties is a high density project if it meets the high density requirements of 15A NCAC 2H .1005. A project that is not located within any of the coastal counties is a high density project if it contains more than 24 percent built upon area or more than two dwelling units per acre. High density projects must use structural stormwater management systems that will control and treat runoff from the first one inch of rain. The structural stormwater management system must also meet the following design standards:~~
 - ~~(i) Draw down the treatment volume no faster than 48 hours, but no slower than 120 hours.~~
 - ~~(ii) Discharge the storage volume at a rate equal to or less than the predevelopment discharge rate for the one year, 24 hour storm.~~
 - ~~(iii) Remove an 85 percent average annual amount of Total Suspended Solids.~~
 - ~~(iv) Meet the General Engineering Design Criteria set out in 15A NCAC 02H .1008(c).~~
 - ~~(v) Wet detention ponds designed in accordance with the requirements of Item (6) of this Paragraph may be used for projects draining to Class SA waters.~~
- ~~(2) Permittees, delegated programs, and regulated entities must require built upon areas to be located at least 30 feet landward of all perennial and intermittent surface waters. For purposes of Paragraph (a), a surface water shall be present if the feature is shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS). Relief from this requirement may be allowed when surface waters are not present in accordance with the provisions of 15A NCAC 02B .0233(3)(a). In addition, an exception to this requirement may be pursued in accordance with Paragraph (c) of this Rule.~~
- ~~(3) Permittees, delegated programs, and regulated entities must implement or require a fecal coliform reduction program that controls, to the maximum extent practicable, the sources of fecal coliform. At a minimum, the program shall include the development and implementation of an oversight program to ensure proper operation and maintenance of on-site wastewater treatment systems for domestic wastewater. For municipalities, this program may be coordinated with local county health departments.~~
- ~~(4) Permittees, delegated programs, and regulated entities must impose or require recorded restrictions and protective covenants to be recorded on the property in the Office of the Register of Deeds in the county where the property is located prior to the issuance of a certificate of occupancy in order to ensure that development activities will maintain the project consistent with approved plans.~~

- (5) ~~Permittees, delegated programs, and regulated entities must implement or require an operation and maintenance plan that ensures the adequate long-term operation of the structural best management practices (BMP) required by the program. The operation and maintenance plan must require the owner of each structural BMP to submit a maintenance inspection report on each structural BMP annually to the local program.~~
- (6) ~~For areas draining to Class SA waters, permittees, delegated programs, and regulated entities must:~~
 - (A) ~~Use BMPs that result in the highest degree of fecal coliform die off and control to the maximum extent practicable sources of fecal coliform while still incorporating the stormwater controls required by the project's density level.~~
 - (B) ~~Implement a program to control the sources of fecal coliform to the maximum extent practicable, including a pet waste management component, which may be achieved by revising an existing litter ordinance, and an on-site domestic wastewater treatment systems component to ensure proper operation and maintenance of such systems, which may be coordinated with local county health departments.~~
 - (C) ~~Meet the requirements of 15A NCAC 2H .1005(a)(2).~~
- (7) ~~For areas draining to Trout Waters, permittees, delegated programs, and regulated entities must:~~
 - (A) ~~Use BMPs that avoid a sustained increase in the receiving water temperature, while still incorporating the stormwater controls required for the project's density level.~~
 - (B) ~~Allow on-site stormwater treatment devices such as infiltration areas, bioretention areas, and level spreaders as added controls.~~
- (8) ~~For areas draining to Nutrient Sensitive Waters, permittees, delegated programs, and regulated entities must:~~
 - (A) ~~Use BMPs that reduce nutrient loading, while still incorporating the stormwater controls required for the project's density level. In areas where the Department has approved a Nutrient Sensitive Water Urban Stormwater Management Program, the provisions of that program fulfill the nutrient loading reduction requirement. Nutrient Sensitive Water Urban Stormwater Management Program requirements are found in 15A NCAC 02B .0200.~~
 - (B) ~~Implement a nutrient application management program for both inorganic fertilizer and organic nutrients to reduce nutrients entering waters of the State.~~
- (9) ~~For post construction requirements, a program will be deemed compliant for the areas where it is implementing any of the following programs:~~
 - (A) ~~Water Supply Watershed I (WS I) 15A NCAC 02B .0212;~~
 - (B) ~~Water Supply Watershed II (WS II) 15A NCAC 02B .0214;~~
 - (C) ~~Water Supply Watershed III (WS III) 15A NCAC 02B .0215;~~
 - (D) ~~Water Supply Watershed IV (WS IV) 15A NCAC 02B .0216;~~
 - (E) ~~Freshwater High Quality Waters (HQW) 15A NCAC 02H .1006;~~
 - (F) ~~Freshwater Outstanding Resource Waters (ORW) 15A NCAC 02H .1007;~~
 - (G) ~~The Neuse River Basin Nutrient Sensitive Waters (NSW) Management Strategy 15A NCAC 02B .0235;~~
 - (H) ~~The Tar-Pamlico River Basin Nutrient Sensitive (NSW) Management Strategy 15A NCAC 02B .0258; or~~
 - (I) ~~The Randleman Lake Water Supply Watershed Nutrient Management Strategy 15A NCAC 02B .0251.~~
- (10) ~~In order to fulfill the post construction minimum measure program requirement, a permittee, delegated program, or regulated entity may use the Department's model ordinance, design its own post construction practices based on the Department's guidance on scientific and engineering standards for BMPs, incorporate the post construction model practices described in this act, or develop its own comprehensive watershed plan that is determined by the Department to meet the post construction stormwater management measure required by 40 Code of Federal Regulations § 122.34(b)(5).~~
- (11) ~~Nothing in this Paragraph shall limit, expand, or alter the requirement that a discharge fully comply with all applicable State or federal water quality standards.~~

~~(b) Exclusions from Post Construction Practices. The post construction practices required by Paragraph (a) of this Rule shall not apply to any of the following:~~

- (1) ~~Development in an area where the requirements of Paragraph (a) of this act are applicable that is conducted pursuant to one of the following authorizations, provided that the authorization was obtained prior to the effective date of the post construction stormwater control requirements in the area and the authorization is valid, unexpired, unrevoked, and not otherwise terminated:~~
 - (A) ~~A building permit pursuant to G.S. 153A 357 or G.S. 160A 417;~~
 - (B) ~~A site specific development plan as defined by G.S. 153A 344.1(b)(5) and G.S. 160A 385.1(b)(5);~~
 - (C) ~~A phased development plan approved pursuant to G.S. 153A 344.1 for a project located in the unincorporated area of a county that is subject to the requirements of Paragraph (a), if the Commission is responsible for implementation of the requirements of Paragraph (a) that shows:~~
 - (i) ~~For the initial or first phase of development, the type and intensity of use for a specific parcel or parcels, including at a minimum, the boundaries of the project and a subdivision plan that has been approved pursuant to G.S. 153A 330 through G.S. 153A 335.~~
 - (ii) ~~For any subsequent phase of development, sufficient detail so that implementation of the requirements of Paragraph (a) to that phase of development would require a material change in that phase of the plan.~~
 - (D) ~~A vested right to the development under G.S. 153A 344(b), 153A 344.1, 160A 385(b), or 160A 385.1 issued by a local government that implements Paragraph (a); or~~
 - (E) ~~A vested right to the development pursuant to common law.~~

~~(2) Redevelopment as defined in Rule .0150 of this Section.~~

~~(c) Exceptions. The Department or an appropriate local authority, pursuant to Article 18 of G.S. 153A or Article 19 of G.S. 160A, may grant exceptions from the 30 foot landward location of built-upon area requirement as well as the deed restrictions and protective covenants requirement as follows:~~

~~(1) An exception may be granted if the application meets all of the following criteria:~~

~~(A) Unnecessary hardships would result from strict application of the act;~~

~~(B) The hardships result from conditions that are peculiar to the property, such as the location, size, or topography of the property;~~

~~(C) The hardships did not result from actions taken by the petitioner; and~~

~~(D) The requested exception is consistent with the spirit, purpose, and intent of this act; will protect water quality; will secure public safety and welfare; and will preserve substantial justice. Merely proving that the exception would permit a greater profit from the property shall not be considered adequate justification for an exception.~~

~~(2) Notwithstanding Item (1) of this Paragraph, exceptions shall be granted in any of the following instances:~~

~~(A) When there is a lack of practical alternatives for a road crossing, railroad crossing, bridge, airport facility, or utility crossing as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of BMPs.~~

~~(B) When there is a lack of practical alternatives for a stormwater management facility; a stormwater management pond; or a utility, including, but not limited to, water, sewer, or gas construction and maintenance corridor, as long as it is located 15 feet landward of all perennial and intermittent surface waters and as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of BMPs.~~

~~(C) A lack of practical alternatives may be shown by demonstrating that, considering the potential for a reduction in size, configuration, or density of the proposed activity and all alternative designs, the basic project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impact to surface waters.~~

~~(3) Reasonable and appropriate conditions and safeguards may be imposed upon any exception granted.~~

~~(4) Local authorities must document the exception procedure and submit an annual report to the Department on all exception proceedings.~~

~~(5) Appeals of the Department's exception decisions must be filed with the Office of Administrative Hearings, under G.S. 150B-23. Appeals of a local authority's exception decisions must be made to the appropriate Board of Adjustment or other appropriate local governing body, under G.S. 160A-388 or G.S. 153A-345.~~

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1).

SECTION .1000 - STORMWATER MANAGEMENT

15A NCAC 02H .1001 POST-CONSTRUCTION STORMWATER MANAGEMENT: PURPOSE AND SCOPE

The purpose of this Section is to protect surface waters and aquatic resources from the adverse impacts of stormwater runoff from development activities.

(1) **APPLICABILITY.** This Section shall apply to development projects and major modifications of development projects for residential, commercial, industrial, or institutional use that are subject to one or more of the post-construction stormwater management programs listed in Item (2) of this Rule. This Section shall not apply to:

(a) land management activities associated with agriculture or silviculture;

(b) activities of the North Carolina Department of Transportation (NCDOT) that are regulated in accordance with the provisions of NPDES Permit Number NCS000250;

(c) linear transportation projects undertaken by an entity other than the NCDOT when:

(i) the project is constructed to NCDOT standards and is in accordance with the NCDOT Stormwater Best Management Practices Toolbox available at no cost at <https://connect.ncdot.gov/resources/hydro/Pages/Stormwater-Program.aspx>;

(ii) Upon completion, the project will be conveyed either to the NCDOT or another public entity and will be regulated in accordance with that entity's NPDES MS4 stormwater permit; and

(iii) the project is not part of a common plan of development.

(d) development activities that have already received a State Stormwater Permit or Certification where no modification or a minor modification is requested. These activities shall follow their existing permit conditions.

(2) **STORMWATER PROGRAMS.** The post-construction stormwater management programs consist of the following:

(a) Coastal Counties – 15A NCAC 02H .1019;

(b) Non-Coastal County High Quality Waters and Outstanding Resource Waters – 15A NCAC 02H .1021;

(c) NPDES MS4 Stormwater – 15A NCAC 02H .1026;

(d) Urbanizing Areas – 15A NCAC 02H .1016; and

(e) Universal Stormwater Management Program- 15A NCAC 02H .1020.

(3) **PERMIT REQUIRED.** A permit shall be required for development activities that are subject to any of the post-construction stormwater management programs listed in Item (2) of this Rule. The permit shall be issued by the

implementing authority in accordance with this Section. If a project is subject to more than one post-construction stormwater management program, the requirements of both programs shall apply unless otherwise required or allowed by the applicable rule of this Section.

- (4) **DISPUTES REGARDING WATER QUALITY CLASSIFICATION.** For stormwater programs that apply based on water quality classification, any disputes regarding water quality classification shall be determined by the N.C. Division of Water Resources pursuant to 15A NCAC 02B .0101 and in accordance with G.S. 143-214.1.
- (5) **VESTED RIGHTS.** Development projects shall be exempted from this Section or allowed to follow an earlier version of the Rules of this Section if a vested right is demonstrated by one of the following:
 - (a) a valid building permit pursuant to G.S. 153A-357 or G.S. 160A-417;
 - (b) a valid site-specific development plan as defined by G.S. 153A-344.1(b)(5) and G.S. 160A-385.1(b)(5); or
 - (c) a phased development plan approved pursuant to G.S. 153A-344.1(b)(5) or G.S. 160A-385.1 that shows:
 - (i) for the initial or first phase of development, the type and intensity of uses for a specific parcel or parcels, including the boundaries of the project and a subdivision plan that has been approved pursuant to G.S. 153A-33 through G.S. 153A-235 or G.S. 160A-371 through G.S. 160A-376, and
 - (ii) for any subsequent phase of development, upon a finding by the Commission that implementation of the requirements of this Section to that phase of development would require a material change in that phase of development as contemplated in the phased development plan.
- (6) **ANTI-DEGRADATION POLICY.** In accordance with the Antidegradation Policy set forth in 15A NCAC 02B .0201, additional stormwater control measures may be required on a case-by-case basis to maintain and protect existing and anticipated uses of surface waters.

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); S.L. 2014-1.

15A NCAC 02H .1002 DEFINITIONS

The definition of any word or phrase in this Section shall be the same as given in Article 21, Chapter 143 of the General Statutes of North Carolina, as amended. Definitions set forth in 15A NCAC 02H .0150 and 40 CFR 122.2 and 122.26(b) (1 July 2003 Edition), including any subsequent editions, are incorporated herein by reference. These federal regulations can be accessed at no cost at <http://www.gpo.gov/fdsys/>. Other words and phrases used in this Section are defined as follows:

- (1) "Adverse impact" means a detrimental effect upon water quality or best usages, including a violation of water quality standards, caused or contributed to by a discharge or loading of a pollutant or pollutants.
- (2) "Best usage" means those uses of waters specified for each classification as determined by the Commission in accordance with the provisions of G.S. 143-214.1 and as set forth in 15A NCAC 02B .0101, 15A NCAC 02B .0200, and 15A NCAC 02B .0300, et seq.
- (3) "Built-upon area" or "BUA" has the same meaning as in G.S. 143-214.7
- (4) "CAMA Major Development Permits" means those permits or revised permits required by the Coastal Resources Commission as set forth in 15A NCAC 07J Sections .0100 and .0200.
- (5) "Certificate of Stormwater Compliance" means the approval for activities that meet the requirements for coverage under a stormwater general permit for development activities that are regulated by this Section.
- (6) "Coastal Counties" means any of the following counties: Beaufort, Bertie, Brunswick, Camden, Carteret, Chowan, Craven, Currituck, Dare, Gates, Hertford, Hyde, New Hanover, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Tyrrell, and Washington.
- (7) "Commission" means the North Carolina Environmental Management Commission.
- (8) "Common plan of development" means a site where multiple separate and distinct development activities may be taking place at different times on different schedules but governed by a single development plan regardless of ownership of the parcels. Information that may be used to determine a "common plan of development" include plats, blueprints, marketing plans, contracts, building permits, public notices or hearings, zoning requests, and infrastructure development plans.
- (9) "Curb Outlet System" means curb and gutter installed in a development that meets the low density criteria set forth in Rule .1003(2) of this Section, with breaks in the curb or other outlets used to convey stormwater runoff to vegetated conveyances.
- (10) "Design volume" means the amount of stormwater runoff that an SCM or series of SCMs is designed to treat in accordance with the applicable minimum design criteria. (11) "Development" has the same meaning as in G.S. 143-214.7.
- (12) "Diffuse flow" means uniform shallow flow that is conveyed to a vegetated filter strip as defined in Rule .1059 of this Section, another ground surface, or stormwater control measure. The purpose of "diffuse flow" is to remove pollutants via infiltration and settling, as well as to reduce erosion prior to stormwater reaching surface waters.
- (13) "Director" means the Director of the Division of Energy, Mineral, and Land Resources unless otherwise assigned by the Secretary of the Department of Environmental Quality.
- (14) "Discrete NRCS Curve Number Method" means a method for calculating the required treatment volume whereby the model described in Urban Hydrology for Small Watersheds (NRCS Technical Report 55), available at no cost at: http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044171.pdf, is run twice: first, to yield runoff volume from the built-upon areas; and second, to yield runoff volume from the remainder of the project. The total required treatment volume shall be the sum of the two results.
- (15) "Division" means the Division of Energy, Mineral, and Land Resources unless otherwise assigned by the Secretary of the Department of Environmental Quality.

- (16) "Drainage Area or Watershed" means the entire area contributing surface runoff to a single point.
- (17) "Existing development" means those projects that are built or those projects that have established a vested right under North Carolina law as of the effective date of the state stormwater program or applicable local government ordinance to which the project is subject, based on at least one of the following criteria:
- (a) Substantial expenditure of resources (time, labor, money) based on a good faith reliance upon having received a valid local government approval to proceed with the project;
 - (b) Having an outstanding valid building permit in compliance with G.S. 153A-344.1 or G.S. 160A-385.1; or
 - (c) Having an approved site specific or phased development plan in compliance with G.S. 153A-344.1 or G.S. 160A-385.1.
- (18) "General Permit" means a permit issued under G.S. 143-215.1(b)(3) and G.S. 143-215.1(b) (4) authorizing a category of similar activities or discharges.
- (19) "Geotextile fabric" means a permeable geosynthetic comprised solely of non-biodegradable textiles.
- (20) "Infiltration Systems" means stormwater control measures designed to allow runoff to move into the ~~soil~~-soil's pore space.
- (21) "Intermittent stream" has the same meaning as in 15A NCAC 02B .0233.
- (22) "Local government" has the same meaning as in 15A NCAC 02B .0202.
- (23) "Major modification" means a modification of a state stormwater permit that is not a "minor modification" as that term is defined in this Rule.
- (24) "Minimum Design Criteria" or "MDC" means the requirements set forth in this Section for siting, site preparation, design and construction, and post-construction monitoring and evaluation necessary for the Department to issue stormwater permits that comply with State water quality standards adopted pursuant to G.S. 143-214.1.
- (25) "Minor modification" means a modification of a state stormwater permit that does not increase the net built-upon area within the project or does not increase the overall size of the stormwater control measures that have been previously approved for the project.
- (26) "90th percentile storm" means the rainfall event with a precipitation depth greater than or equal to 90 percent of all 24-hour storms on an annual basis.
- (27) "95th percentile storm" means the rainfall event with a precipitation depth greater than or equal to 95 percent of all 24-hour storms on an annual basis.
- (28) "Non-erosive velocity" means the flow rate of water, usually measured in feet per second, that does not exceed the maximum permissible velocity for the condition and type of soil and groundcover over which the water is flowing. Erosion is likely to occur when the maximum permissible velocity is exceeded. Guidance on non-erosive velocity is available at no cost at http://www.bae.ncsu.edu/bae/workshops/dot/pdf/mod3_3atext.pdf.
- (29) "Notice of Intent" means a written notification to the Division that an activity or discharge is intended to be covered by a general permit in lieu of an application for an individual permit. (30) "NPDES" means National Pollutant Discharge Elimination System
- (31) "Off-site Stormwater Systems" means stormwater management systems that are located outside the boundaries of the specific project in question, but designed to control stormwater drainage from that project and other potential development sites.
- (32) "One-year, 24-hour storm" means. the maximum amount of rainfall during a 24 consecutive hour period expected, on average, to occur once a year. One-year, 24-hour storm depths are estimated by the National Oceanic and Atmospheric Administration (NOAA) Precipitation Frequency Data Server (PFDS), available at no cost at <http://hdsc.nws.noaa.gov/hdsc/pfds/>.
- (33) "On-site Stormwater Systems" means the systems necessary to control stormwater within an individual development project and located within the project boundaries.
- (34) "Peak attenuation volume" means stormwater runoff in excess of the design volume that is conveyed to an SCM where it is not necessarily treated in accordance with the applicable MDC but rather is released by the SCM in a controlled manner to address potential downstream erosion and flooding impacts to meet federal, State, or local regulations beyond the requirements of this Section.
- (35) "Perennial waterbody" has the same meaning as in 15A NCAC 02B .0233.
- (36) "Perennial stream" has the same meaning as in 15A NCAC 02B .0233.
- (37) "Permeable pavement" means paving material that absorbs water or allows water to infiltrate through the paving material. "Permeable pavement" materials include porous concrete, permeable interlocking concrete pavers, concrete grid pavers, porous asphalt, and any other material with similar characteristics.
- (38) "Person" has the same meaning as in G.S. 143-212(4).
- (39) "Project" means the proposed development activity for which an applicant is seeking a stormwater permit from the state or other entity in accordance with this Section. The Project shall exclude any land adjacent to the area disturbed by the project that has been counted as pervious by any other development regulated under a federal, State, or local stormwater regulation. Owners and developers of large developments consisting of many linked projects are encouraged to develop a master plan that illustrates how each project fits into the design of the large development.
- (40) "Public linear transportation project" means a project consisting of a road, bridge, or railway that is on a public thoroughfare plan or provides improved access for existing development and that is owned and maintained by a public entity.
- (41) "Required storm depth" means the minimum amount of rainfall that shall be used to calculate the required treatment volume or to evaluate whether a project has achieved runoff volume match.

- (42) "Required treatment volume" means the minimum amount of stormwater runoff from a high density project that shall be treated in an SCM or a series of SCMs.
- (43) "Redevelopment" has the same meaning as in G.S. 143-214.7,
- (44) "Residential development" has the same meaning as in 15A NCAC 02B .0202.
- (45) "Runoff volume match" means that the volume of runoff after development does not exceed the amount of runoff before development for the design storm.
- (46) "Seasonal High Water Table" or "SHWT" means the highest level of the saturated zone in the soil during a year with normal rainfall.
- (47) "Sedimentation and Erosion Control Plan" means any plan, amended plan, or revision to an approved plan submitted to the Division of Energy, Mineral, and Land Resources or a delegated authority in accordance with G.S. 113A-57.
- (48) "Simple Method" means a method for calculating the required treatment volume using the formula $V = 3630 * R_D * (0.05 + 0.9 * I_A) * A$. In this equation, V = the estimated runoff volume for the design storm, R_D = design storm rainfall depth in inches, I_A = impervious fraction (impervious portion of drainage area in acres/ drainage area in acres), and A = watershed area in acres.
- (49) "Stormwater" has the same meaning as in G.S.143-213(16a).
- (50) "Stormwater Collection System" means any conduit, pipe, channel, curb, or gutter for the primary purpose of transporting (not treating) runoff. A stormwater collection system does not include vegetated swales, swales stabilized with armoring, or alternative methods where natural topography or other physical constraints prevents the use of vegetated swales (subject to case-by-case review), curb outlet systems, or pipes used to carry drainage underneath built-upon surfaces that are associated with development controlled by the provisions of Rule .1003 in this Section.
- (51) "Stormwater Control Measure" or "SCM" means a permanent structural device that is designed, constructed, and maintained to remove pollutants from stormwater runoff by promoting settling or filtration or mimic the natural hydrologic cycle by promoting infiltration, evapo-transpiration, post-filtration discharge, reuse of stormwater, or a combination thereof.
- (52) "Ten-year storm intensity" means the maximum rate of rainfall of a duration equivalent to the time of concentration expected, on the average, once in 10 years. Ten-year storm intensities are estimated by the National Oceanic and Atmospheric Administration (NOAA) Precipitation Frequency Data Server (PFDS), available at no cost at <http://hdsc.nws.noaa.gov/hdsc/pfds/>.
- (53) "Vegetated setback" means an area of natural or established vegetation adjacent to surface waters, through which stormwater runoff flows in a diffuse manner to protect surface waters from degradation due to development activities.
- (54) "Vegetated conveyance" means a permanent, designed waterway lined with vegetation that is used to convey stormwater runoff at a non-erosive velocity within or away from a developed area.
- (55) "Water Dependent Structures" means a structure that requires access, proximity to, or siting within surface waters to fulfill its basic purpose, such as boat ramps, boat houses, docks, or bulkheads. Ancillary facilities such as restaurants, outlets for boat supplies, parking lots, and boat storage areas shall not be considered water dependent structures.

Authority G.S. 143-213; 143-214.1; 143-214.7; 143-215.3(a)(1).

15A NCAC 02H .1003 REQUIREMENTS THAT APPLY TO ALL SUBJECT PROJECTS

The following requirements shall apply to projects subject to any North Carolina stormwater program set forth in Rule .1001 of this Section.

- (1) **CALCULATION OF PROJECT DENSITY.** The following requirements shall apply to the calculation of project density:
 - (a) Project density shall be calculated as the total built-upon area divided by the total project area;
 - (b) A project with existing development may use the calculation method in Sub-Item (1)(a) or shall have the option of calculating project density as the difference of total built-upon area minus existing built-upon area divided by the difference of total project area minus existing built-upon area;
 - (c) Total project area shall exclude the following:
 - (i) areas below the Normal High Water (NHW) line or Mean High Water (MHW) line; and
 - (ii) areas defined as "coastal wetlands" pursuant to 15A NCAC 07H .0205, available at no cost at <http://reports.oah.state.nc.us/ncac.asp> as measured landward from the Normal High Water (NHW) line; and
 - (d) On a case-by-case basis as determined by the Division during application review, projects may be considered to have both high and low density areas based on one or more of the following criteria:
 - (i) natural drainage area boundaries;

- (ii) variations in land use throughout the project; and
 - (iii) construction phasing.
- (2) **DESIGN REQUIREMENTS FOR LOW DENSITY PROJECTS.** Low density projects shall meet the following minimum design criteria:
 - (a) **DENSITY THRESHOLDS.** Low density projects shall not exceed the low density development thresholds set forth in the stormwater programs to which they are subject pursuant to this Section. For projects subject to the requirements for Non-Coastal High Quality Waters and Outstanding Resource Waters, dwelling unit per acre may be used instead of density to establish low density status for single-family detached residential development as set forth in Rule .1021 in this Section;
 - (b) **DIFFUSE FLOW.** Projects shall be designed to maximize diffuse flow through vegetated areas and minimize channelization of flow;
 - (c) **VEGETATED CONVEYANCES.** Stormwater that cannot be released as diffuse flow shall be transported by vegetated conveyances. A minimal amount of non-vegetated conveyances for erosion protection or piping for driveways or culverts under a road shall be allowed when it cannot be avoided. Vegetated conveyances shall meet the following requirements:
 - (i) Side slopes shall be no steeper than 3:1 (horizontal to vertical) unless it is demonstrated to the Division that the soils and vegetation will remain stable in perpetuity based on engineering calculations and on-site soil investigation;
 - (ii) The conveyance shall be designed so that it does not erode during the peak flow from the 10-year storm as demonstrated by engineering calculations; and
 - (iii) An operation and maintenance (O&M) plan shall be provided for the vegetated conveyances. The O&M plan shall indicate the maintenance procedures that shall be taken to return the vegetated conveyance to design specification if a failure occurs. O&M plans shall be signed by the owner and notarized. O&M plans shall be referenced on the project plat. An O&M plan shall not be required for vegetated conveyances that shall be within publicly-maintained rights-of-way.
 - (d) **CURB OUTLET SWALES.** Low density projects may use curb and gutter with outlets to convey stormwater to grassed swales or vegetated areas. Requirements for these curb outlet systems are as follows:
 - (i) The curb outlets shall be designed such that the swale or vegetated area can carry the peak flow from the 10-year storm at a non-erosive velocity;
 - (ii) The longitudinal slope of the swale or vegetated area shall not exceed five percent, where practicable. Where not practical due to physical constraints, devices to slow the rate of runoff and encourage infiltration to reduce pollutant delivery shall be provided;
 - (iii) The swale's cross-section shall be trapezoidal with a minimum bottom width of two feet;
 - (iv) The side slopes of the swale or vegetated area shall be no steeper than 3:1 (horizontal to vertical);
 - (v) The minimum length of the swale or vegetated area shall be 100 feet; and
 - (vi) Low density projects may use treatment swales designed pursuant to Rule .1061 of this Section in lieu of the requirements specified in Part (i) through (v).
- (3) **DESIGN REQUIREMENTS FOR HIGH DENSITY PROJECTS.** High density projects are projects that do not conform to Item (2) of this Rule. High density projects shall meet the following minimum design criteria:
 - (a) **TREATMENT REQUIREMENTS.** The stormwater from the project shall be treated in one or more primary Stormwater Control Measures (SCMs). SCMs shall be designed, constructed, and maintained so that the project achieves either runoff treatment or runoff volume match.
 - (i) Runoff treatment shall be achieved when all of the stormwater runoff from all surfaces on the project at build-out is treated in a primary SCM. Primary SCMs shall include: wet ponds, stormwater wetlands, infiltration systems, sand filters, bioretention cells, permeable pavement, green roofs, rainwater harvesting, and approved new stormwater technologies.
 - (ii) Runoff volume match shall be achieved when stormwater from the project at the ultimate built-out potential is controlled such that post-development runoff volume does not exceed pre-development runoff volume.
 - (b) **OFF-SITE STORMWATER.** Stormwater runoff from off-site areas and existing development that pre-dates the effective dates of these rules is not required to be treated in the SCM. Runoff from off-site areas or existing development that is not bypassed shall be included in the sizing of on-site SCMs at its full built-out potential.
 - (c) **OFF-SITE SCM.** A project that controls runoff through an off-site SCM shall be allowed on a case-by-case basis as determined by the Division if the off-site SCM meets the provisions of this Section.
 - (d) **REPLACING EXISTING DEVELOPMENT WITH NEW DEVELOPMENT.** When existing built-upon area is proposed to be replaced, the requirements shall be as follows:
 - (i) Where the existing footprint is being replaced with an equivalent amount of built-upon area, greater or equal stormwater treatment shall be provided.
 - (ii) Where there is a net increase of built-upon area, stormwater runoff from the net increase shall be treated in an SCM.
 - (e) **CALCULATION METHODS.** The required stormwater treatment volume to be controlled shall be calculated using either the Simple Method or the difference between pre- and post-development runoff volume computed using the Discrete NRCS Curve Number Method. The required storm depth is specified as set forth in the stormwater program to which the project is subject.

- (f) MDC FOR SCMS. SCMs shall meet the relevant MDC set forth in Rules .1050 through .1062 of this Section.
- (g) FLEXIBILITY IN THE MDC FOR SCMs. Applicants may propose designs for SCMs that do not meet all of the MDC. The process for permitting SCMs that do not meet all of the MDC shall be as follows:
 - (i) When the Division is the permitting authority, these designs shall be submitted to the Division during the standard permitting process pursuant to Rule .1042 of this Section.
 - (ii) Proposed designs shall be considered by the Division or local government permitting authority on a project-by-project basis;
 - (iii) The applicant shall provide technical justification based on engineering calculations and the results of published research studies, showing that the proposed design is equally or more protective of water quality than the MDC and that it shall function in perpetuity; and
 - (iv) Proposed designs shall be approved if the Division or local government permitting authority determines that the information provided by the applicant satisfies the requirements of Sub-items (ii) and (iii) of this Item.
- (4) VEGETATED SETBACKS. Vegetated setbacks shall be required adjacent to waters as specified in the stormwater rules to which the project is subject pursuant to this Section, in addition to the following requirements applicable to all vegetated setbacks:
 - (a) The width of a vegetated setback shall be measured horizontally from the normal pool elevation of impounded structures, from the top of bank of each side of streams or rivers, and from the mean high waterline of tidal waters, perpendicular to the shoreline;
 - (b) Vegetated setbacks may be cleared or graded, but shall be replanted and maintained in grass or other vegetation;
 - (c) Built-upon area within a vegetated setback shall be allowed when it is not practical to locate the built-upon area elsewhere, the built-upon area within the vegetated setback is minimized, and channelizing runoff from the built-upon area is avoided. Built-upon area within the vegetated setback shall be limited to:
 - (i) Publicly-funded linear projects such as roads, greenways, and sidewalks;
 - (ii) Water Dependent Structures; and
 - (iii) Minimal footprint uses such as poles, signs, utility appurtenances, and security lights.
 - (d) Stormwater that has not been treated in an SCM shall not be discharged through a vegetated setback; instead it shall be released at the edge of the vegetated setback and allowed to flow through the setback in a diffuse manner.
 - (e) Artificial streambank and shoreline stabilization shall not be subject to the requirements of this Item.
- (6) STORMWATER OUTLETS. Stormwater outlets shall be designed so that they do not cause erosion immediately downslope of the discharge point during the peak flow from the 10-year storm event as shown by engineering calculations.
- (7) DEED RESTRICTIONS AND PROTECTIVE COVENANTS. The permittee shall record deed restrictions and protective covenants to ensure development activities maintain the development consistent with the plans and specifications approved by the Division.
- (8) COMPLIANCE WITH OTHER REGULATORY PROGRAMS. Project designs shall comply with all other applicable requirements pursuant to G.S. 143-214.1, 143-214.5, 143-214.7, and 143-215.3(a)(1).

Authority G.S. 143-214.1; 143-214.7; 143-215.1(d); 143-215.3(a)(1).

15A NCAC 02H .1005 STORMWATER REQUIREMENTS: COASTAL COUNTIES

~~(a) Requirements for Certain Nonresidential and Residential Development in the Coastal Counties. All nonresidential development activities that occur within the Coastal Counties that will add more than 10,000 square feet of built-upon area or that require a Sedimentation and Erosion Control Plan, pursuant to G.S. 113A-57 or a CAMA Major Development Permit, pursuant to G.S. 113A-118 and all residential development activities within the Coastal Counties that require a Sedimentation and Erosion Control Plan, pursuant to G.S. 113A-57 or a CAMA Major Development Permit, pursuant to G.S. 113A-118 shall manage stormwater runoff as provided in Items (1), (2), and (3) below. A development activity or project requires a Sedimentation and Erosion Control Plan if the activity or project disturbs one acre or more of land, including an activity or project that disturbs less than one acre of land that is part of a larger common plan of development. Whether an activity or project that disturbs less than one acre of land is part of a larger common plan of development shall be determined in a manner consistent with the memorandum referenced as "Guidance Interpreting Phase 2 Stormwater Requirements" from the Director of the DWQ of the DENR to Interested Parties dated 24 July 2006.~~

- ~~(1) Development Near Outstanding Resource Waters (ORW). Development activities within the Coastal Counties and located within 575 feet of the mean high waterline of areas designated by the Commission as Outstanding Resource Waters (ORW) shall meet the requirements of Rule .1007 of the Section and shall be permitted as follows:~~
 - ~~(A) Low Density Option. Development shall be permitted pursuant to Rule .1003(d)(1) of this Section if the development meets all of the following requirements:~~
 - ~~(i) The development has a built-upon area of 12 percent or less. A development project with an overall density at or below the low density threshold, but containing areas with a density greater than the overall project density, shall be considered low density as long as the project meets or exceeds the requirements for low density development and locates the higher density development in upland areas and away from surface waters and drainageways to the maximum extent practicable.~~
 - ~~(ii) Stormwater runoff from the development is transported primarily by vegetated conveyances. The conveyance system shall not include a stormwater collection system as defined in Rule .1002 of this Section.~~

- (iii) — ~~The development contains a vegetative buffer in accordance with Paragraph (e) of this Rule.~~
 - (B) — ~~High Density Option. Development shall be permitted pursuant to Rule .1003(d)(2) of this Section if the development meets all of the following requirements:~~
 - (i) — ~~The development has a built upon area of greater than 12 percent.~~
 - (ii) — ~~The development has no direct outlet channels or pipes to Class SA waters unless permitted in accordance with 15A NCAC 02H .0126.~~
 - (iii) — ~~The development utilizes control systems that are any combination of infiltration systems, bioretention systems, constructed stormwater wetlands, sand filters, rain barrels, cisterns, rain gardens or alternative low impact development (LID) stormwater management systems designed in accordance with Rule .1008 of this Section to control and treat the greater of, runoff from all surfaces generated by one and one half inches of rainfall, or the difference in the stormwater runoff from all surfaces from the predevelopment and postdevelopment conditions for a one year, 24 hour storm. Wet detention ponds may be used as a stormwater control system to meet the requirements of this Subparagraph (1)(B)(iii), provided that the stormwater control system fully complies with the requirements of Subparagraph (1)(B). If a wet detention pond is used within one half mile of Class SA waters, installation of a stormwater best management practice in series with the wet detention pond shall be required to treat the discharge from the wet detention pond. Alternatives as described in Rule .1008(h) of this Section may also be approved if they meet the requirements of Subparagraph (1)(B).~~
 - (iv) — ~~Stormwater runoff from the development that is in excess of the design volume must flow overland through a vegetative filter designed in accordance with Rule .1008 of this Section with a minimum length of 50 feet measured from mean high water of Class SA waters.~~
 - (v) — ~~The development contains a vegetative buffer in accordance with Paragraph (e) of this Rule.~~
 - (C) — ~~Stormwater Discharges Prohibited. All development activities, including both low and high density projects, shall prohibit new points of stormwater discharge to Class SA waters or an increase in the volume of stormwater flow through conveyances or increase in capacity of conveyances of existing stormwater conveyance systems that drain to Class SA waters. Any modification or redesign of a stormwater conveyance system within the contributing drainage basin must not increase the net amount or rate of stormwater discharge through existing outfalls to Class SA waters. The following shall not be considered a direct point of stormwater discharge:~~
 - (i) — ~~Infiltration of the stormwater runoff from the design storm as described in Subparagraph (1)(B)(iii).~~
 - (ii) — ~~Diffuse flow of stormwater at a non erosive velocity to a vegetated buffer or other natural area, that is capable of providing effective infiltration of the runoff from the design storm as described in Subparagraph (1)(B)(iii). Notwithstanding the other requirements of this Rule, the infiltration mandated in this Subparagraph (1)(C)(ii) does not require a minimum separation from the seasonal high water table.~~
 - (iii) — ~~The discharge from a wet detention pond that is treated by a secondary stormwater best management practice, provided that both the wet detention pond and the secondary stormwater best management practice meet the requirements of Subparagraph (1)(C).~~
 - (D) — ~~Limitation on the Density of Development. Development shall be limited to a built upon area of 25 percent or less.~~
- (2) — ~~Development Near Class SA Waters. Development activities within one half mile of and draining to those waters classified by the Commission as Class SA waters or within one half mile of waters classified by the Commission as Class SA waters and draining to unnamed freshwater tributaries to Class SA waters shall meet the requirements of Subparagraphs (1)(A), (B), and (C). The extent of Class SA waters is limited to those waters that are determined to be at least an intermittent stream based on a site stream determination made in accordance with the procedures that are delineated in the Division's "Identification Methods for the Origin of Intermittent and Perennial Streams" prepared pursuant to Session Law 2001-404.~~
- (3) — ~~Other Coastal Development. Development activities within the Coastal Counties except those areas described in Subparagraphs (1) and (2) of this Paragraph shall meet all of the following requirements:~~
- (A) — ~~Low Density Option. Development shall be permitted pursuant to Rule .1003(d)(1) of this Section if the development meets all of the following requirements:~~
 - (i) — ~~The development has a built upon area of 24 percent or less. A development project with an overall density at or below the low density threshold, but containing areas with a density greater than the overall project density, shall be considered low density as long as the project meets or exceeds the requirements for low density development and locates the higher density in upland areas and away from surface waters and drainageways to the maximum extent practicable.~~
 - (ii) — ~~Stormwater runoff from the development is transported primarily by vegetated conveyances. The conveyance system shall not include a stormwater collection system as defined in Rule .1002 of this Section.~~
 - (iii) — ~~The development contains a vegetative buffer in accordance with Paragraph (e) of this Rule.~~
 - (B) — ~~High Density Option. Higher density developments shall be permitted pursuant to Rule .1003(d)(2) of this Section if the development meets all of the following requirements:~~
 - (i) — ~~The development has a built upon area of greater than 24 percent.~~

- (ii) ~~The development uses control systems that are any combination of infiltration systems, wet detention ponds, bioretention systems, constructed stormwater wetlands, sand filters, rain barrels, cisterns, rain gardens or alternative stormwater management systems designed in accordance with Rule .1008 of this Section.~~
- (iii) ~~Control systems must be designed to store, control, and treat the stormwater runoff from all surfaces generated by one and one half inch of rainfall.~~
- (iv) ~~The development contains a vegetative buffer in accordance with Paragraph (e) of this Rule.~~

~~(b) Requirements for Limited Residential Development in Coastal Counties. For residential development activities within the 20 Coastal Counties that are located within one half mile and draining to Class SA waters, that have a built upon area greater than 12 percent, that will add more than 10,000 square feet of built upon area, and that does not require a Sedimentation and Erosion Control Plan, pursuant to G.S. 113A-57 or a CAMA Major Development Permit, pursuant to G.S. 113A-118, a one time, nonrenewable stormwater management permit shall be obtained. The permit shall require recorded restrictions or protective covenants to be recorded on the property in the Office of the Register of Deeds in the county where the property is located prior to the issuance of a certificate of occupancy in order to ensure that the plans and specifications approved in the permit are maintained. Under this permit, stormwater runoff shall be managed using any one or combination of the following practices:~~

- ~~(1) Install rain cisterns or rain barrels designed to collect all rooftop runoff from the first one and one half inches of rain. Rain barrels and cisterns shall be installed in such a manner as to facilitate the reuse of the collected rain water on site and shall be installed in such a manner that any overflow from these devices is directed to a vegetated area in a diffuse flow. Construct all uncovered driveways, uncovered parking areas, uncovered walkways, and uncovered patios out of permeable pavement or other pervious materials.~~
- ~~(2) Direct rooftop runoff from the first one and one half inches of rain to an appropriately sized and designed rain garden. Construct all uncovered driveways, uncovered parking areas, uncovered walkways, and uncovered patios out of permeable pavement or other pervious materials.~~
- ~~(3) Install any other stormwater best management practice that meets the requirements of Rule .1008 of this Section to control and treat the stormwater runoff from all built upon areas of the site from the first one and one half inches of rain.~~

~~(c) Requirements for Structural Stormwater Controls. Structural stormwater controls required under this Rule shall meet all of the following requirements:~~

- ~~(1) Remove an 85 percent average annual amount of Total Suspended Solids.~~
- ~~(2) For detention ponds, draw down the treatment volume no faster than 48 hours, but no slower than 120 hours.~~
- ~~(3) Discharge the storage volume at a rate equal to or less than the predevelopment discharge rate for the one year, 24 hour storm.~~
- ~~(4) Meet the General Engineering Design Criteria set forth in Rule .1008(e) of this Section.~~
- ~~(5) For structural stormwater controls that require separation from the seasonal high water table, a minimum separation of two feet is required. Where a separation of two feet from the seasonal high water table is not practicable, the Division may grant relief from the separation requirement pursuant to the Alternative Design Criteria set out in Rule .1008(h) of this Section. No minimum separation from the seasonal high water table is required for a secondary stormwater best management practice that is used in a series with another stormwater best management practice.~~

~~(d) Wetlands. Developments regulated by this Rule that have wetlands inside of, or adjacent to, the development must meet the following requirements:~~

- ~~(1) Areas defined as Coastal Wetlands under 15A NCAC 07H .0205, as measured landward from the normal high waterline, shall not be included in the overall project area to calculate impervious surface density. Wetlands that are not regulated as coastal wetlands pursuant to 15A NCAC 07H .0205 and that are located landward of the normal high waterline may be included in the overall project area to calculate impervious surface density.~~
- ~~(2) Stormwater runoff from built upon areas that is directed to flow through any wetlands shall flow into and through these wetlands at a non-erosive velocity.~~

~~(e) Vegetative Buffer. Developments permitted under Paragraph (a) shall contain a 50 foot wide vegetative buffer, as defined in Rule .1002(22) of this Section, for new development activities and a 30 foot wide vegetative buffer for redevelopment activities. The width of a buffer is measured horizontally from the normal pool elevation of impounded structures, from the bank of each side of streams or rivers, and from the mean high waterline of tidal waters, perpendicular to the shoreline. The vegetative buffer may be cleared or graded, but must be planted with and maintained in grass or any other vegetative or plant material. Furthermore, stormwater control best management practices (BMPs), or stormwater control structures, with the exception of wet detention ponds, may be located within this vegetative buffer. The Division may, on a case by case basis, grant a minor variance from the vegetative buffer requirements of this section pursuant to the procedures set out in 15A NCAC 02B .0233(9)(b). Vegetative buffers and filters required by this section and any other buffers or filters required by State water quality or coastal management rules or local government requirements may be met concurrently and may contain, in whole or in part, coastal, isolated, or 404 jurisdictional wetlands that are located landward of the normal waterline.~~

~~(f) Exemptions From Vegetative Buffer Requirements. The following activities are exempt from the vegetative buffer requirements of Paragraph (e) of this Rule:~~

- ~~(1) Development in urban waterfronts that meets the requirements of 15A NCAC 07H .0209(g),~~
- ~~(2) Development in a new urban waterfront area that meets the requirements of S.L. 2004-117,~~
- ~~(3) Those activities listed in 15A NCAC 07H .0209(d)(10)(A) through 15A NCAC 07H .0209(d)(10)(H),~~
- ~~(4) Development of upland marinas that have received or are required to secure a CAMA Major Development Permit.~~

~~(g) Compliance with Other Rules. In addition to the requirements specified in this section, activities regulated under this section must also comply with any requirements of any other applicable law or rule.~~

~~(h) Exclusions. The requirements of this Rule shall not apply to any of the following:~~

- ~~(1) Activities of the North Carolina Department of Transportation that are regulated in accordance with the provisions of the Department's National Pollutant Discharge Elimination System (NPDES) Stormwater Permit.~~
- ~~(2) Development activities that are conducted pursuant to and consistent with one of the following authorizations, or any timely renewal thereof, shall be regulated by those provisions and requirements of this Rule that were effective at the time of the original issuance of the following authorizations:~~
 - ~~(A) State Stormwater Permit issued under the provisions of this Rule.~~
 - ~~(B) Stormwater Certification issued pursuant to Rule .1000 of this Section prior to 1 December 1995.~~
 - ~~(C) A CAMA Major Development Permit.~~
 - ~~(D) 401 Certification that contains an approved Stormwater Management Plan.~~
 - ~~(E) A building permit pursuant to G.S. 153A 357 or G.S. 160A 417.~~
 - ~~(F) A site specific development plan as defined by G.S. 153A 344.1(b)(5) and G.S. 160A 385.1(b)(5).~~
 - ~~(G) A phased development plan approved pursuant to G.S. 153A 344.1 or G.S. 160A 385.1 that shows:~~
 - ~~(i) For the initial or first phase of development, the type and intensity of use for a specific parcel or parcels, including at a minimum, the boundaries of the project and a subdivision plan that has been approved pursuant to G.S. 153A 330 through G.S. 153A 335 or G.S. 160A 371 through G.S. 160A 376.~~
 - ~~(ii) For any subsequent phase of development, sufficient detail so that implementation of the requirements of this section to that phase of development would require a material change in that phase of the plan.~~
 - ~~(H) A vested right to the development pursuant to common law.~~
- ~~(3) Redevelopment activities that result in no net increase in built upon area and provide stormwater control equal to the previous development.~~
- ~~(4) Development activities for which a complete Stormwater Permit Application has been accepted by the Division prior to October 1, 2008, shall be regulated by the provisions and requirements of this Rule that were effective at the time that this application was accepted as complete by the Division. For purposes of this Rule, a Stormwater Permit Application is deemed accepted as complete by the Division when the application is assigned a permit number in the Division's Basinwide Information Management System.~~
- ~~(5) Development activities for which only a minor modification of a State Stormwater Permit is required shall be regulated by the provisions and requirements of this Rule that were effective at the time of the original issuance of the State Stormwater Permit. For purposes of this Rule, a minor modification of a State Stormwater Permit is defined as a modification that does not increase the net area of built upon area within the project site or does not increase the overall size of the stormwater controls that have been previously approved for that development activity.~~
- ~~(6) Municipalities designated as a National Pollutant Discharge Elimination System (NPDES) Phase 2 municipality located within the 20 Coastal Counties until such time as the NPDES Phase 2 Stormwater Permit expires and is subject to renewal. Upon renewal of the NPDES Phase 2 Stormwater Permits for municipalities located within the 20 Coastal Counties, the Department shall review the permits to determine whether the permits should be amended to include the provisions of this Rule.~~

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a).

15A NCAC 02H .1006 STORMWATER REQUIREMENTS: HIGH QUALITY WATERS

All development activities which require a stormwater management permit under Rule .1003 of this Section and are within one mile of and draining to waters classified as High Quality Waters (HQW) shall manage stormwater runoff in accordance with the provisions outlined in this Rule. More stringent stormwater management measures may be required on a case by case basis where it is determined that additional measures are required to protect water quality and maintain existing and anticipated uses of these waters.

- ~~(1) All waters classified as WS I or WS II (15A NCAC 2B .0212 and .0214) and all waters located in the coastal counties (Rule .1005 of this Section) are excluded from the requirements of this Rule since they already have requirements for stormwater management.~~
- ~~(2) Low Density Option: Development shall be permitted pursuant to Rule .1003(c)(1) of this Section if the development has:~~
 - ~~(a) built upon area of 12 percent or less or proposes single family residential development on lots of one acre or greater;~~
 - ~~(b) stormwater runoff transported primarily by vegetated conveyances; conveyance system shall not include a discrete stormwater collection system as defined in Rule .1002 of this Section;~~
 - ~~(c) a 30 foot wide vegetative buffer.~~
- ~~(3) High Density Option: Higher density developments shall be permitted pursuant to Rule .1003(c)(2) of this Section if stormwater control systems meet the following criteria:~~
 - ~~(a) control systems must be wet detention ponds or alternative stormwater management systems designed in accordance with Rule .1008 of this Section;~~
 - ~~(b) control systems must be designed to control runoff from all surfaces generated by one inch of rainfall.~~

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a).

15A NCAC 02H .1007 STORMWATER REQUIREMENTS: OUTSTANDING RESOURCE WATERS

All development activities which require a stormwater management permit under Rule .1003 of this Section and which drain to waters classified as Outstanding Resource Waters (ORW) shall manage stormwater runoff in accordance with the provisions of this Rule. Water quality conditions shall clearly maintain and protect the outstanding resource values of waters classified as Outstanding Resource Waters (ORW). Stormwater management strategies to protect resource values of waters classified as ORW shall be developed on a site specific basis during the proceedings to classify these waters as ORW. The requirements of this Rule serve as the minimum conditions that must be met by development activities. More stringent stormwater management measures may be required on a case by case basis where it is determined that additional measures are required to protect water quality and maintain existing and anticipated uses of these waters.

- (1) ~~Freshwater ORWs: Development activities which require a stormwater management permit under Rule .1003 of this Section and which drain to freshwaters classified as ORW shall manage stormwater runoff as follows:~~
 - (a) ~~Low Density Option: Development shall be permitted pursuant to Rule .1003(d)(1) of this Section if the development has:~~
 - (i) ~~built upon area of 12 percent or less or proposes single family residential development on lots of one acre or greater;~~
 - (ii) ~~stormwater runoff transported primarily by vegetated conveyances; conveyance system shall not include a discrete stormwater collection system as defined in Rule .1002 of this Section; and~~
 - (iii) ~~a 30 foot wide vegetative buffer.~~
 - (b) ~~High Density Option: Higher density developments shall be permitted pursuant to Rule .1003(d)(2) of this Section if stormwater control systems meet the following criteria:~~
 - (i) ~~control systems must be wet detention ponds or alternative stormwater management systems designed in accordance with Rule .1008 of this Section; and~~
 - (ii) ~~control systems must be designed to control runoff from all surfaces generated by one inch of rainfall.~~
- (2) ~~Saltwater ORWs: Development activities which require a stormwater management permit under Rule .1003 of this Section and which drain to saltwaters classified as ORW shall manage stormwater runoff as follows:~~
 - (a) ~~Within 575 feet of the mean high water line of designated ORW areas, development activities shall comply with the low density option as specified in Rule .1005(2)(a) of this Section.~~
 - (b) ~~Projects draining to saltwaters classified as ORW that impact the Areas of Environmental Concern (AEC), determined pursuant to G.S. 113A-113, shall delineate the ORW AEC on the project plans and conform to low density requirements as specified in Rule .1005(2)(a) of this Section within the ORW AEC.~~
 - (c) ~~After the Commission has received a request to classify Class SA waters as ORW and given permission to the Director to schedule a public hearing to consider reclassification and until such time as specific stormwater design criteria become effective, only development which meets the requirements of Rule .1003(d)(3)(A), (B) and (C) and Rule .1005(2)(a) of this Section shall be approved within 575 feet of the mean high water line of these waters.~~

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a).

15A NCAC 02H .1008 DESIGN OF STORMWATER MANAGEMENT MEASURES

(a) ~~Structural Stormwater Control Options. Stormwater control measures which may be approved pursuant to this Rule and which shall not be considered innovative include:~~

- (1) ~~Stormwater infiltration systems including infiltration basins/ponds, swales, and vegetative filters;~~
- (2) ~~Wet detention ponds; and~~
- (3) ~~Devices approved in accordance with Paragraph (h) of this Rule.~~

All stormwater management structures are subject to the requirements of Paragraph (e) of this Rule.

(b) ~~Innovative Systems. Innovative measures for controlling stormwater which are not well established through actual experience may be approved on a demonstration basis under the following conditions:~~

- (1) ~~There is a reasonable expectation that the control measures will be successful;~~
- (2) ~~The projects are not located near High Quality Waters (HQW);~~
- (3) ~~Monitoring requirements are included to verify the performance of the control measures; and~~
- (4) ~~Alternatives are available if the control measures fail and shall be required when the Director determines that the system has failed.~~

(c) ~~General Engineering Design Criteria For All Projects.~~

- (1) ~~The size of the system must take into account the runoff at the ultimate built-out potential from all surfaces draining to the system, including any off site drainage. The storage volume of the system shall be calculated to provide for the most conservative protection using runoff calculation methods described on pages A.1 and A.2 in "Controlling Urban Runoff: A Practical Manual For Planning And Designing Urban BMPs" which is hereby incorporated by reference not including amendments. This document is available through the Metropolitan Washington (D.C.) Council of Governments at a cost of forty dollars (\$40.00). This method is also described in the Division's document "An Overview of Wet Detention Basin Design." Other engineering methods may be approved if these methods are shown to provide for equivalent protection;~~
- (2) ~~All side slopes being stabilized with vegetative cover shall be no steeper than 3:1 (horizontal to vertical);~~
- (3) ~~All stormwater management structures shall be located in recorded drainage easements for the purposes of operation and maintenance and shall have recorded access easements to the nearest public right of way. These easements shall be granted in favor of the party responsible for operating and maintaining the stormwater management structures;~~

- (4) ~~Vegetative filters designed in accordance with Paragraph (f) of this Rule are required from the overflow of all infiltration systems and discharge of all stormwater wet detention ponds. These filters shall be at least 30 feet in length, except where a minimum length of 50 feet is required in accordance with Rule .1005(2)(b)(iii) of this Section;~~
- (5) ~~Stormwater controls shall be designed in accordance with the provisions of this Section. Other designs may be acceptable if these designs are shown by the applicant, to the satisfaction of the Director, to provide equivalent protection;~~
- (6) ~~In accordance with the Antidegradation Policy as defined in 15A NCAC 2B .0201, additional control measures may be required on a case by case basis to maintain and protect, for existing and anticipated uses, waters with quality higher than the standards; and~~
- (7) ~~Stormwater control measures used for sedimentation and erosion control during the construction phase must be cleaned out and returned to their designed state.~~

~~(d) Infiltration System Requirements. Infiltration systems may be designed to provide infiltration of the entire design rainfall volume required for a site or a series of successive systems may be utilized. Infiltration may also be used to pretreat runoff prior to disposal in a wet detention ponds. The following are general requirements:~~

- (1) ~~Infiltration systems shall be a minimum of 30 feet from surface waters and 50 feet from Class SA waters;~~
- (2) ~~Infiltration systems shall be a minimum distance of 100 feet from water supply wells;~~
- (3) ~~The bottom of infiltration systems shall be a minimum of two feet above the seasonal high water table;~~
- (4) ~~Infiltration systems must be designed such that runoff in excess of the design volume by passes the system and does not flush pollutants through the system;~~
- (5) ~~Infiltration systems must be designed to completely draw down the design storage volume to the seasonal high water table under seasonal high water conditions within five days and a hydrogeologic evaluation may be required to determine whether the system can draw down in five days;~~
- (6) ~~Soils must have a minimum hydraulic conductivity of 0.52 inches per hour to be suitable for infiltration;~~
- (7) ~~Infiltration systems must not be sited on or in fill material, unless approved on a case by case basis under Paragraph (h) of this Rule;~~
- (8) ~~Infiltration systems may be required on a case by case basis to have an observation well to provide ready inspection of the system;~~
- (9) ~~If runoff is directed to infiltration systems during construction of the project, the system must be restored to design specifications after the project is complete and the entire drainage area is stabilized.~~

~~(e) Wet Detention Pond Requirements. These practices may be used as a primary treatment device or as a secondary device following an infiltration system. Wet detention ponds shall be designed for a specific pollutant removal. Specific requirements for these systems are as follows:~~

- (1) ~~The design storage volume shall be above the permanent pool;~~
- (2) ~~The discharge rate from these systems following the one inch rainfall design storm shall be such that the draw down to the permanent pool level occurs within five days, but not in less than two days;~~
- (3) ~~The design permanent pool level mean depth shall be a minimum of three feet and shall be designed with a surface area sufficient to remove 85 percent of total suspended solids. The design for 85 percent total suspended solids removal shall be based on "Methodology for Analysis of Detention Basins for Control of Urban Runoff Quality" which is hereby incorporated by reference not including subsequent amendments. This document is available from the U.S. Environmental Protection Agency (Document number EPA440/5-87-001) at no cost;~~
- (4) ~~The inlet structure must be designed to minimize turbulence using baffles or other appropriate design features and shall be located in a manner that avoids short circuiting in the pond;~~
- (5) ~~Pretreatment of the runoff by the use of vegetative filters may be used to minimize sedimentation and eutrophication of the detention pond;~~
- (6) ~~Wet detention ponds shall be designed with a forebay to enhance sedimentation at the inlet to the pond;~~
- (7) ~~The basin side slopes for the storage volume above the permanent pool shall be stabilized with vegetation down to the permanent pool level and shall be designed in accordance with Subparagraph (c)(2) of this Rule;~~
- (8) ~~The pond shall be designed with side slopes no steeper than 3:1 (horizontal to vertical);~~
- (9) ~~The pond shall be designed to provide for a vegetative shelf around the perimeter of the basin. This shelf shall be gently sloped (6:1 or flatter) and shall consist of native vegetation;~~
- (10) ~~The pond shall be designed to account for sufficient sediment storage to allow for the proper operation of the facility between scheduled cleanout periods.~~

~~(f) Vegetative Filter Requirements. Vegetative filters shall be used as a non structural method for providing additional infiltration, filtering of pollutants and minimizing stormwater impacts. Requirements for these filters are as follows:~~

- (1) ~~A distribution device such as a swale shall be used to provide even distribution of runoff across the width of the vegetative filter;~~
- (2) ~~The slope and length of the vegetative filter shall be designed, constructed and maintained so as to provide a non erosive velocity of flow through the filter for the 10 year storm and shall have a slope of five percent or less, where practicable; and~~
- (3) ~~Vegetation in the filter may be natural vegetation, grasses or artificially planted wetland vegetation appropriate for the site characteristics.~~

~~(g) Curb Outlet Systems. Projects that meet the low density provisions of Rules .1005 through .1007 of this Section may use curb and gutter with outlets to convey the stormwater to grassed swales or vegetated areas prior to the runoff discharging to vegetative filters or wetlands. Requirements for these curb outlet systems are as follows:~~

- (1) ~~The curb outlets shall be located such that the swale or vegetated area can carry the peak flow from the 10 year storm and the velocity of the flow shall be non-erosive;~~
- (2) ~~The longitudinal slope of the swale or vegetated area shall not exceed five percent, where practicable;~~
- (3) ~~The side slopes of the swale or vegetated area shall be no steeper than 5:1 (horizontal to vertical). Where this is not practical due to physical constraints, devices to slow the rate of runoff and encourage infiltration to reduce pollutant delivery shall be provided;~~
- (4) ~~The minimum length of the swale or vegetated area shall be 100 feet; and~~
- (5) ~~In sensitive areas, practices such as check dams, rock or wooden, may be required to increase detention time within the swale or vegetated area.~~

~~(h) Alternative Design Criteria. In addition to the control measures outlined in Paragraphs (b), (d), (e), (f) and (g) of this Rule, stormwater management systems consisting of other control options or series of control options may be approved by the Director on a case by case basis. This approval shall only be given in cases where the applicant can demonstrate that the Alternative Design Criteria shall provide equal or better stormwater control, equal or better protection of waters of the state, and result in no increased potential for nuisance conditions. The criteria for approval shall be that the stormwater management system shall provide for 85 percent average annual removal of Total Suspended Solids and that the discharge rate from the system meets one of the following:~~

- ~~(1) the discharge rate following the one inch design storm shall be such that the runoff volume draws down to the pre storm design stage within five days, but not less than two days; or~~
- ~~(2) the post development discharge rate shall be no larger than predevelopment discharge rate for the one year 24 hour storm.~~

~~(i) Operation and maintenance plans. Prior to approval of the development by the Division an operation and maintenance plan or manual shall be provided by the developer for stormwater systems, indicating the operation and maintenance actions that shall be taken, specific quantitative criteria used for determining when those actions shall be taken, and who is responsible for those actions. The plan must clearly indicate the steps that shall be taken and who shall be responsible for restoring a stormwater system to design specifications if a failure occurs and must include an acknowledgment by the responsible party. Development must be maintained consistent with the requirements in these plans and the original plans and any modifications to these plans must be approved by the Division.~~

~~(j) System Design. Stormwater systems must be designed by an individual who meets any North Carolina occupational licensing requirements for the type of system proposed. Upon completion of construction, the designer for the type of stormwater system installed must certify that the system was inspected during construction, was constructed in substantial conformity with plans and specifications approved by the Division and complies with the requirements of this Section prior to issuance of the certificate of occupancy.~~

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a).

15A NCAC 02H .1009 STAFF REVIEW AND PERMIT PREPARATION

~~(a) The staff of the permitting agency shall conduct a review of plans, specifications and other project data accompanying the application and shall determine if the application and required information are complete. The staff shall acknowledge receipt of a complete application.~~

~~(b) If the application is not complete with all required information, the application may be returned to the applicant. The staff shall advise the applicant by mail:~~

- ~~(1) how the application or accompanying supporting information may be modified to make them acceptable or complete; and~~
- ~~(2) that the 90 day processing period required in G.S. 143-215.1 begins upon receipt of corrected or complete application with required supporting information.~~

~~(c) If an application is accepted and later found to be incomplete, the applicant shall be advised how the application or accompanying supporting information may be modified to make them acceptable or complete, and that if all required information is not submitted within 30 days that the project shall be returned as incomplete.~~

Authority G.S. 143-215.1; 143-215.3(a).

15A NCAC 02H .1010 FINAL ACTION ON PERMIT APPLICATIONS TO THE DIVISION

~~(a) The Director shall take final action on all applications not later than 90 days following receipt of a complete application and with required information. All permits or renewals of permits and decisions denying permits or renewals shall be in writing.~~

~~(b) The Director is authorized to:~~

- ~~(1) issue a permit containing such conditions as are necessary to effectuate the purposes of G.S. 143, Article 21;~~
- ~~(2) issue permit containing time schedules for achieving compliance with applicable water quality standards and other legally applicable requirements;~~
- ~~(3) deny a permit application where necessary to effectuate:

 - ~~(A) the purposes of G.S. 143, Article 21;~~
 - ~~(B) the purposes of G.S. 143-215.67(a);~~
 - ~~(C) rules on coastal waste treatment, disposal, found in Section .0400 of this Subchapter;~~
 - ~~(D) rules on "subsurface disposal systems," found in 15A NCAC 18A .1900. Copies of these Rules are available from the Division of Environmental Health, P.O. Box 29535, Raleigh, North Carolina 27626-0535; and~~
 - ~~(E) rules on groundwater quality standards found in Subchapter 2L of this Chapter.~~~~
- ~~(4) hold public meetings when necessary to obtain additional information needed to complete the review of the application. The application will be considered as incomplete until the close of the meeting record.~~

- ~~(c) If a permit is denied, the letter of denial shall state the reason(s) for denial and any reasonable measures which the applicant may take to make the application approvable.~~
- ~~(d) Permits shall be issued or renewed for a period of time deemed reasonable by the Director.~~

Authority G.S. 143-215.1; 143-215.3(a).

15A NCAC 02H .1011 MODIFICATION AND REVOCATION OF PERMITS

Any permit issued by the Division pursuant to these Rules is subject to revocation, or modification upon 60 days notice by the Director in whole or part for good cause including but not limited to:

- ~~(1) violation of any terms or conditions of the permit;~~
- ~~(2) obtaining a permit by misrepresentation or failure to disclose fully all relevant facts;~~
- ~~(3) refusal of the permittee to allow authorized employees of the Department of Environment, Health, and Natural Resources upon presentation of credentials:~~
 - ~~(a) to enter upon permittee's premises on which a system is located in which any records are required to be kept under terms and conditions of the permit;~~
 - ~~(b) to have access to any copy and records required to be kept under terms and conditions of the permit;~~
 - ~~(c) to inspect any monitoring equipment or method required in the permit; or~~
 - ~~(d) to sample any discharge of pollutants;~~
- ~~(4) failure to pay the annual fee for administering and compliance monitoring.~~

Authority G.S. 143-215.1; 143-215.3(a).

15A NCAC 02H .1012 DELEGATION OF AUTHORITY

For permits issued by the Division, the Director is authorized to delegate any or all of the functions contained in these Rules except the following:

- ~~(1) denial of a permit application;~~
- ~~(2) revocation of a permit not requested by the permittee; or~~
- ~~(3) modification of a permit not requested by the permittee.~~

Authority G.S. 143-215.3(a).

15A NCAC 02H .1013 GENERAL PERMITS

~~(a) In accordance with the provisions of G.S. 143-215.1(b)(3) and (4), general permits may be developed by the Division and issued by the Director for categories of activities covered in this Section. All activities in the State that received a "Certificate of Coverage" for that category from the Division shall be deemed covered under that general permit. Each of the general permits shall be issued individually under G.S. 143-215.1, using all procedural requirements specified for state permits including application and public notice. Activities covered under general permits, developed in accordance with this Rule, shall be subject to the same standards and limits, management practices, enforcement authorities, and rights and privileges as specified in the general permit. Procedural requirements for application and permit approval, unless specifically designated as applicable to individuals proposed to be covered under the general permits, apply only to the issuance of the general permits. After issuance of the general permit by the Director, activities in the applicable categories may request coverage under the general permit, and the Director or his designee shall grant appropriate certification. General permits may be written to regulate categories of other activities that all: involve the same or substantially similar operations; have similar characteristics; require the same limitations or operating conditions; require the same or similar monitoring; and in the opinion of the Director are more appropriately controlled by a general permit.~~

~~(b) No provision in any general permit issued under this Rule shall be interpreted to allow the permittee to violate state water quality standards or other applicable environmental standards.~~

~~(c) For a general permit to apply to an activity, a Notice of Intent to be covered by the general permit must be submitted to the Division using forms provided by the Division and, as appropriate, following the application procedures specified in this Section. If all requirements are met, coverage under the general permit may be granted. If all requirements are not met, a long form application and full application review procedure shall be required.~~

~~(d) General permits may be modified and reissued by the Division as necessary. Activities covered by general permits need not submit new Notices of Intent or renewal requests unless so directed by the Division. If the Division chooses not to renew a general permit, all facilities covered under that general permit shall be notified to submit applications for individual permits.~~

~~(e) All previous state water quality permits issued to a facility which can be covered by a general permit, whether for construction or operation, are revoked upon request of the permittee, termination of the individual permit and issuance of the Certification of Coverage.~~

~~(f) Anyone engaged in activities covered by the general permit rules but not permitted in accordance with this Section shall be considered in violation in G.S. 143-215.1.~~

~~(g) Any individual covered or considering coverage under a general permit may choose to pursue an individual permit for any activity covered by this Section.~~

~~(h) The Director may require any person, otherwise eligible for coverage under a general permit, to apply for an individual permit by notifying that person that an application is required. Notification shall consist of a written description of the reason(s) for the decision, appropriate permit application forms and application instructions, a statement establishing the required date for submission of the application, and a statement informing the person that coverage by the general permit shall automatically terminate upon issuance of the individual permit. Reasons for requiring application for an individual permit may be:~~

- ~~(1) the activity is a significant contributor of pollutants;~~

- (2) ~~conditions at the permitted site change, altering the constituents or characteristics of the site such that the activity no longer qualifies for coverage under a general permit;~~
- (3) ~~noncompliance with the general permit;~~
- (4) ~~noncompliance with Commission Rules;~~
- (5) ~~a change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the activity; or~~
- (6) ~~a determination that the water of the stream receiving stormwater runoff from the site is not meeting applicable water quality standards.~~

(i) ~~Any interested person may petition the Director to take an action under Paragraph (h) of this Rule to require an individual permit.~~

(j) ~~General permits may be modified, terminated, or revoked and reissued in accordance with the authority and requirements of Rules .1010 and .1011 of this Section.~~

Authority G.S. 143-215.1; 143-215.3(a).

15A NCAC 02H .1014 STORMWATER MANAGEMENT FOR URBANIZING AREAS

(a) ~~Stormwater discharges subject to National Pollutant Discharge Elimination System (NPDES) permitting are addressed in Section .0100 entitled "Point Source Discharges to the Surface Waters," which incorporates, supplements and elaborates on the federal rules for stormwater NPDES discharges.~~

(b) ~~Other stormwater control requirements are addressed in this Section but may also be addressed in sections dedicated to particular water classifications or circumstances. Projects located in urbanizing areas, which are not subject to NPDES permitting, must obtain permits in accordance with Rules .1014 through .1017 of this Section. For post-construction requirements, a program will be deemed compliant for the areas that satisfy Rule .1017(a)(9) of this Section.~~

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1).

15A NCAC 02H .1015 URBANIZING AREA DEFINITIONS

The definition of any word or phrase for Urbanizing Areas shall be as follows:

- (1) ~~The definitions set out in 40 Code of Federal Regulations § 122.2 and § 122.26(b) (1 July 2003 Edition).~~
- (2) ~~The definitions set out in G.S. 143-212 and G.S. 143-213.~~
- (3) ~~The definitions set out in 15A NCAC 02H .0103.~~
- (4) ~~The definitions set out in Rule .1002 of this Section, except for the definitions of "Development" and "Redevelopment", which are defined below.~~
- (5) ~~"One year, 24 hour storm" means a rainfall of an intensity expected to be equaled or exceeded, on average, once in 12 months and with a duration of 24 hours.~~
- (6) ~~"BMP" means Best Management Practice.~~
- (7) ~~"Development" means any land disturbing activity that increases the amount of built upon area or that otherwise decreases the infiltration of precipitation into the soil.~~
- (8) ~~"Division" means the Division of Water Quality in the Department.~~
- (9) ~~"Planning jurisdiction" means the territorial jurisdiction within which a municipality exercises the powers authorized by G.S. 160A-19, or a county may exercise the powers authorized by G.S. 153A-18.~~
- (10) ~~"Public entity" means the United States; the State; a city, village, township, county, school district, public college or university, or single purpose governmental agency; or any other governing body that is created by federal or State law.~~
- (11) ~~"Redevelopment" means any land disturbing activity that does not result in a net increase in built upon area and that provides greater or equal stormwater control than the previous development.~~
- (12) ~~"Regulated entity" means any public entity that must obtain a Phase II National Pollutant Discharge Elimination System (NPDES) permit for stormwater management for its municipal separate storm sewer system (MS4).~~
- (13) ~~"Sensitive receiving waters" means any of the following:~~
- (14) ~~Waters that are classified as high quality, outstanding resource, shellfish, trout, or nutrient sensitive waters in accordance with subsections (d) and (e) of 15A NCAC 02B .0101.~~
- (15) ~~Waters that are occupied by or designated as critical habitat for aquatic animal species that are listed as threatened or endangered by the United States Fish and Wildlife Service or the National Marine Fisheries Service under the provisions of the Endangered Species Act of 1973 (Pub. L. No. 93-205; 87 Stat. 884; 16 U.S.C. §§ 1531, et seq.), as amended.~~
- (16) ~~Waters for which the designated use, as described by the classification system set out in subsections (c), (d), and (e) of 15A NCAC 02B .0101, have been determined to be impaired in accordance with the requirements of subsection (d) of 33 U.S.C. § 1313.~~
- (17) ~~"Significant contributor of pollutants" means a municipal separate storm sewer system (MS4) or a discharge that contributes to the pollutant loading of a water body or that destabilizes the physical structure of a water body such that the contribution to pollutant loading or the destabilization may reasonably be expected to adversely affect the quality and uses of the water body. Uses of a water body shall be determined pursuant to 15A NCAC 02B .0211 through 15A NCAC 02B .0222 and 15A NCAC 02B .0300, et seq.~~
- (18) ~~"Total maximum daily load (TMDL) implementation plan" means a written, quantitative plan and analysis for attaining and maintaining water quality standards in all seasons for a specific water body and pollutant.~~

15A NCAC 02H .1016 DEVELOPMENT IN URBANIZING AREAS: APPLICABILITY AND DELINEATION

(a) Development in Unincorporated Areas of Counties.

- (1) Development that cumulatively disturbs one acre or more of land, including development that disturbs less than one acre of land that is part of a larger common plan of development or sale, that is located in the unincorporated area of a county shall comply with the standards set forth in Rule.1017 of this Section beginning 1 July 2007 if the development is located in any of the following:
 - (A) an area that is designated as an urbanized area under the most recent federal decennial census.
 - (B) the unincorporated area of a county outside of a municipality designated as an urbanized area under the most recent federal decennial census that extends:
 - (i) One mile beyond the corporate limits of a municipality with a population of less than 10,000 individuals;
 - (ii) Two miles beyond the corporate limits of a municipality with a population of 10,000 or more individuals but less than 25,000 individuals; or
 - (iii) Three miles beyond the corporate limits of a municipality with a population of 25,000 or more individuals.
 - (C) an area delineated pursuant to Subparagraph (2) of this Paragraph.
 - (D) a county that contains an area that is designated as an urbanized area under the most recent federal decennial census in which the unduplicated sum of:
 - (i) the area that is designated as an urbanized area under the most recent federal decennial census;
 - (ii) the area described in Subparagraph (1)(B) of this Paragraph;
 - (iii) the area delineated pursuant to Item (2) of this Paragraph;
 - (iv) the jurisdiction of a regulated entity designated pursuant to Paragraph (a) of Rule .0151 of this Subchapter;
 - (v) the area that is regulated by a NPDES MS4 permit for stormwater management required pursuant to 15A NCAC 02H .0151(b); and
 - (vi) areas in the county that are subject to any of the stormwater management programs administered by the Division equal or exceed 75 percent of the total geographic area of the county.
 - (E) A county that contains an area that is designated as an urbanized area under the 1990 or 2000 federal decennial census and that has an actual population growth rate that exceeded the State population growth rate for the period 1995 through 2004, unless that actual population growth rate occurred in an area within the county that consists of less than five percent of the total land area of the county.
- (2) For purposes of this subdivision Paragraph, the stormwater programs administered by the Division shall be as follows:
 - (i) Water Supply Watershed I (WS-I) – 15A NCAC 02B .0212;
 - (ii) Water Supply Watershed II (WS-II) – 15A NCAC 02B .0214;
 - (iii) Water Supply Watershed III (WS-III) – 15A NCAC 02B .0215;
 - (iv) Water Supply Watershed IV (WS-IV) – 15A NCAC 02B .0216;
 - (v) High Quality Waters (HQW) – 15A NCAC 02H .1021;
 - (vi) Outstanding Resource Waters (ORW) – 15A NCAC 02H .1021;
 - (vii) Coastal Counties – 15A NCAC 02H .1019;
 - (viii) Neuse River Basin Nutrient Sensitive Waters (NSW) Management Strategy – 15A NCAC 02B .0235;
 - (ix) Tar-Pamlico River Basin Nutrient Sensitive (NSW) Management Strategy – 15A NCAC 02B .0258;
 - (x) Randleman Lake Water Supply Watershed Nutrient Management Strategy – 15A NCAC 02B .0251; and
 - (xi) Other Environmental Management Commission Nutrient Sensitive Waters (NSW) Classifications – 15A NCAC 02B .0223.
- ~~(2)~~(3) Delineation Process. The Commission shall delineate regulated coverage areas as follows:
 - (A) Schedule: The Commission shall implement the delineation process in accordance with the schedule for review and revision of basinwide water quality management plans as provided in G.S. 143-215.8B(c).
 - (B) Potential candidate coverage areas. A potential candidate coverage area shall be the unincorporated area of a county that is outside a municipality designated as a regulated entity pursuant to ~~Items (2) and (3) of Rule .0151(a)(2) and (3) of this Subchapter~~ that:
 - (i) extends one mile beyond the corporate limits of a municipality with a population of less than 10,000 individuals;
 - (ii) extends two miles beyond the corporate limits of a municipality with a population of 10,000 or more individuals but less than 25,000 individuals; or
 - (iii) extends three miles beyond the corporate limits of a municipality with a population of 25,000 or more individuals.
 - (C) Identification of candidate coverage areas. The Commission shall identify an area within a potential candidate coverage area described in ~~Subparagraph (2)(B) Part (3)(B)~~ of this Paragraph as a candidate coverage area if the discharge of stormwater within or from the unincorporated area has the potential to have an adverse impact on water quality.

- (D) Notice and comment on candidacy. The Commission shall notify each public entity that is located in whole or in part in a candidate coverage area. After notification of each public entity, the Commission shall publish a map of the unincorporated areas within the river basin that have been identified as candidate coverage areas. The Commission shall accept public comment on the proposed delineation of a candidate coverage area for a period of not less than 30 days.
- (E) Delineation of regulated coverage areas. After review of public comment, the Commission shall delineate regulated coverage areas. The Commission shall delineate a candidate coverage area as a regulated coverage area only if the Commission determines that the discharge of stormwater within or from the candidate coverage area either:
 - (i) has an adverse impact on water quality; or
 - (ii) results in a significant contribution of pollutants to sensitive receiving waters, taking into account the effectiveness of other applicable water quality protection programs. To determine the effectiveness of other applicable water quality protection programs, the Commission shall consider the water quality of the receiving waters and whether the waters support the best usages.
- (F) Notice of delineation. The Commission shall provide written notice to each public entity that is located in whole or in part in a candidate coverage area of its delineation determination. The notice shall state the basis for the determination.

~~(3)(4)~~ Except as provided in this Subparagraph and Rule .1018 of this Section, the Commission shall administer and enforce the standards for development in the regulated coverage areas. To the extent authorized by law, where the development is located in a municipal planning jurisdiction, the municipality shall administer and enforce the standards. A public entity may request that the Commission delegate administration and enforcement of the stormwater management program to the public entity as provided in Rule .1018 of this Section.

(b) Development in Incorporated Areas in Certain Counties. Development that cumulatively disturbs one acre or more of land located in the incorporated areas of a county described in ~~Subparagraphs (D) and (E) of Paragraph Parts (a)(1)(D) and (E) of this Rule~~ that are not designated as an urbanized area under the most recent federal decennial census shall comply with the standards set forth in Rule .1017 of this Section beginning 1 July 2007. The Commission shall administer and enforce the standards for development unless the public entity requests that the Commission delegate administration and enforcement of the stormwater management program to the public entity as provided in Rule .1018 of this Section.

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); S.L. 2011-220.

15A NCAC 02H .1017 NPDES MS4 AND URBANIZING AREAS: POST-CONSTRUCTION REQUIREMENTS

The purpose of this Rule is to minimize the impact of stormwater runoff from new development on the water quality of surface waters and to protect their best usages.

- (1) **IMPLEMENTING AUTHORITY.** The requirements of this Rule shall be implemented by permittees, delegated programs, and regulated entities in accordance with Rule .0151 of this Subchapter and Rule .1016 of this Section.
- (2) **APPLICABILITY.** This Rule shall apply to all development that is subject to Rule .1016 of this Section or that disturbs one acre or more of land, including a development that disturbs less than one acre of land that is part of a larger common plan of development or sale, and is subject to a local NPDES post-construction stormwater program pursuant to Rule .0153 of this Subchapter. Where this Rule is administered by the State, it shall not apply to projects that are subject to any of the following rules:
 - (a) Water Supply Watershed I (WS-I) – 15A NCAC 02B .0212;
 - (b) Water Supply Watershed II (WS-II) – 15A NCAC 02B .0214;
 - (c) Water Supply Watershed III (WS-III) – 15A NCAC 02B .0215;
 - (d) Water Supply Watershed IV (WS-IV) – 15A NCAC 02B .0216;
 - (e) Freshwater High Quality Waters (HQW) – 15A NCAC 02H .1021;
 - (f) Freshwater Outstanding Resource Waters (ORW) – 15A NCAC 02H .1021;
 - (g) Neuse River Basin Nutrient Sensitive Waters (NSW) Management Strategy – 15A NCAC 02B .0235;
 - (h) Tar-Pamlico River Basin Nutrient Sensitive Waters (NSW) Management Strategy – 15A NCAC 02B .0258;
 - (i) Randleman Lake Water Supply Watershed Nutrient Management Strategy – 15A NCAC 02B .0251;
 - (j) Jordan Water Supply Nutrient Strategy: Stormwater Management for New Development – 15A NCAC 02B .0265;
 - (k) Falls Reservoir Water Supply Nutrient Strategy: Stormwater Management for New Development – 15A NCAC 02B .0277;
 - (l) Coastal Counties: Stormwater Management Requirements – 15A NCAC 02H .1019;
 - (m) Goose Creek Watershed: Stormwater Control Requirements – 15A NCAC 02B .0602; or
 - (n) Universal Stormwater Management Program – 15A NCAC 02H .1020.
- (3) **GENERAL REQUIREMENTS FOR DEVELOPMENT.** In addition to the requirements of this Rule, development shall also comply with the requirements for all projects subject to stormwater rules set forth in Rule .1003 of this Section.
- (4) **PROJECT DENSITY.** A project shall be considered a low density project if it meets the low density criteria set forth in Item (2) of Rule .1003 of this Section and contains no more than 24 percent built-upon area or no more than two dwelling units per acre; otherwise, a project shall be considered high density. Low density projects shall comply with the MDC for low density projects set forth in Item (2) of Rule .1003 of this Section. High density projects shall

comply with the MDC for high density projects set forth in Item (3) of Rule .1003 of this Section and shall use SCMs designed to achieve either runoff treatment or runoff volume match in accordance Item (5) of this Rule.

- (5) REQUIRED STORM DEPTH. For high density projects that use an SCM or SCMs designed to achieve runoff treatment, the required storm depth shall be one inch. For high density projects that use an SCM or SCMs designed to achieve runoff volume match, the post-development runoff volume shall not exceed the pre-development runoff volume for the 90th percentile storm.
- (6) OPERATION AND MAINTENANCE PLANS. Permittees and regulated entities shall implement and delegated programs shall require an operation and maintenance plan for SCMs in accordance with Rule .1050 of this Section. In addition, the operation and maintenance plan shall require the owner of each SCM to annually submit a maintenance inspection report on each SCM to the local program or regulated entity.
- (7) FECAL COLIFORM REDUCTION. Permittees and regulated entities shall implement and delegated programs shall require a fecal coliform reduction program that controls, to the maximum extent practicable, sources of fecal coliform. At a minimum, the program shall include a pet waste management component, which may be achieved by revising an existing litter ordinance, and an on-site domestic wastewater treatment system component to ensure proper operation and maintenance of such systems, which may be coordinated with local county health departments.
- (8) RESTRICTIONS AND COVENANTS. Restrictions and protective covenants shall be recorded on the property in the Office of the Register of Deeds in the county where the property is located prior to the issuance of a certificate of occupancy in order to ensure that development activities will maintain the project consistent with approved plans.
- (9) PROJECTS IN AREAS DRAINING TO SENSITIVE RECEIVING WATERS. Additional requirements shall apply to projects located in areas draining to certain sensitive receiving waters as follows:
 - (a) Projects located in areas draining to Class SA waters shall meet the requirements of Rule .1019 of this Section and shall use SCMs that result in the highest degree of fecal coliform die-off and control sources of fecal coliform to the maximum extent practicable;
 - (b) Projects located in areas draining to Trout waters shall use SCMs that avoid a sustained increase in the receiving water temperature; and
 - (c) Projects located in areas draining to Nutrient Sensitive Waters shall use SCMs that reduce nutrient loading, while still incorporating the stormwater controls required for the project's density level. Permittees and regulated entities shall implement and delegated programs shall require a nutrient application management program for inorganic fertilizer and organic nutrients to reduce nutrients entering waters of the State. In areas subject to a Nutrient Sensitive Water Stormwater Management Program, the provisions of that program fulfill the nutrient loading reduction requirement. Nutrient Sensitive Water Stormwater Management Program requirements set forth in 15A NCAC 02B .0200.
- (10) VEGETATED SETBACKS. Vegetated setbacks from perennial waterbodies, perennial streams, and intermittent streams shall be required in accordance with Rule .1003 of this Section and shall be at least 30 feet in width. Vegetated setbacks from such waters shall be required if the water is shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture available at no cost at <http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/survey/> or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS) available at no cost at <http://www.usgs.gov/pubprod/>. Relief from this requirement may be allowed when surface waters are not present in accordance with 15A NCAC 02B .0233(3)(a). In addition, an exception to this requirement may be pursued in accordance with Item (12) of this Rule.
- (11) EXCLUSIONS. Development shall not be subject to this Rule if it is conducted pursuant to one of the following authorizations, provided that the authorization was obtained prior to the effective date of the post-construction stormwater control requirements in the area in which the development is located, and the authorization is valid, unexpired, unrevoked, and not otherwise terminated:
 - (a) a building permit pursuant to G.S. 153A-357 or G.S. 160A-417;
 - (b) a site-specific development plan as defined by G.S. 153A-344.1(b)(5) and G.S. 160A-385.1(b)(5);
 - (c) a phased development plan approved pursuant to G.S. 153A-344.1 for a project located in the unincorporated area of a county that is subject to this Rule, if the Commission is responsible for implementation of the requirements of this Rule, that shows:
 - (i) For the initial or first phase of development, the type and intensity of use for a specific parcel or parcels, including the boundaries of the project and a subdivision plan that has been approved pursuant to G.S. 153A-330 through G.S. 153A-335; and
 - (ii) For any subsequent phase of development, upon a finding by the Commission that implementation of the requirements of this Rule to that phase of development would require a material change in that phase of development as contemplated in the phased development plan.
 - (d) a vested right to the development pursuant to G.S. 153A-344(b), 153A-344.1, 160A-385(b), or 160A-385.1 issued by a local government that implements this Rule; or
 - (e) a vested right to the development pursuant to common law.

- (12) EXCEPTIONS. The Department or an appropriate local authority, pursuant to Article 18 of G.S. 153A or Article 19 of G.S. 160A, may grant exceptions from the 30-foot landward location of built-upon area requirement as well as the deed restrictions and protective covenants requirement as follows:
- (a) An exception shall be granted if the application meets all of the following criteria:
- (i) Unnecessary hardships would result from strict application of the requirement, and these hardships result from conditions that are peculiar to the property, such as the location, size, or topography of the property, and not as a result from actions taken by the petitioner; and
 - (ii) The requested exception is consistent with the spirit, purpose, and intent of this act; will protect water quality; will secure public safety and welfare; and will preserve substantial justice. Merely proving that the exception would permit a greater profit from the property shall not be considered adequate justification for an exception.
- (b) Notwithstanding Sub-Item(a) of Sub-Item (12), exceptions shall be granted in any of the following instances:
- (i) When there is a lack of practical alternatives for a road crossing, railroad crossing, bridge, airport facility, or utility crossing as long as it is located, designed, constructed, and maintained to minimize disturbance; provide maximum nutrient removal; protect against erosion and sedimentation; have the least adverse effects on aquatic life and habitat; and protect water quality to the maximum extent practicable through the use of SCMs; or
 - (ii) When there is a lack of practical alternatives for a stormwater management facility; a stormwater management pond; or a utility, including water, sewer, or gas construction and maintenance corridor; as long as it is located 15 feet landward of all perennial waterbodies, perennial streams, and intermittent streams and as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of SCMs.
 - (iii) A lack of practical alternatives may be shown by demonstrating that, considering the potential for an alternative configuration, or a reduction in size or density of the proposed activity, the basic project purpose cannot be practically accomplished in a manner that would avoid or result in less adverse impact to surface waters.
- (c) Conditions and safeguards may be imposed upon any exception granted in accordance with G.S. 143-215.1(b).
- (d) Delegated programs and regulated entities shall document the exception procedure and submit an annual report to the Department on all exception proceedings.
- (e) Appeals of the Department's exception decisions shall be filed with the Office of Administrative Hearings, under G.S. 150B-23. Appeals of a local authority's exception decisions shall be made to the appropriate Board of Adjustment or other appropriate local governing body, pursuant to G.S. 160A-388 or G.S. 153A-345.
- (13) In order to fulfill the post-construction minimum measure program requirement, a permittee, delegated program, or regulated entity may use the Department's model ordinance, design its own post-construction practices based on the Department's guidance on scientific and engineering standards for SCMs, incorporate the post-construction model practices described in this Section, or develop its own comprehensive watershed plan that meets the post-construction stormwater management measure required by 40 CFR 122.34(b)(5) (1 July 2003 Edition and subsequent amendments and editions).
- (14) Nothing in this Rule shall alter the requirement that a discharge fully comply with all applicable State or federal water quality standards.

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1).

15A NCAC 02H .1018 URBANIZING AREAS: DELEGATION

A public entity that does not administer the requirements of a NPDES MS4 permit for stormwater management throughout the entirety of its planning jurisdiction and whose planning jurisdiction includes a regulated coverage area pursuant to Paragraphs (a) and (b) of Rule .1016 of this Section may submit a stormwater management program for its regulated coverage area or a portion of its regulated coverage area to the Commission for approval pursuant to G.S. 143-214.7(c) and (d). One paper copy of the stormwater management program shall be submitted to the Division. The stormwater management program shall include an ordinance or regulation adopted by a public entity that meets or exceeds the minimum requirements of Rules .1003 and .1017 of this Section. Two or more public entities are authorized to establish a joint program and to enter into agreements that are necessary for the proper administration and enforcement of the program. The resolution, memorandum of agreement, or other document that establishes any joint program shall be duly recorded in the minutes of the governing body of each public entity participating in the program, and a certified copy of each resolution shall be filed with the Commission. The Commission shall review each proposed program submitted to it to determine whether the submission is complete. A complete submission is one that has one copy each of the required ordinance or regulation and, if applicable, certified resolutions with an effective date and other supporting documentation that demonstrates a public entity's stormwater management program meets the minimum requirements of Rules .1003 and .1017 of this Section. Within 90 days after the receipt of a complete submission, the Commission shall notify the public entity submitting the program that it has been approved, approved with modifications, or disapproved. The Commission shall approve a program only upon determining that its requirements equal or exceed those of Rules .1003 and .1017 of this Section. If the Commission determines that any public entity is failing to administer or enforce an approved stormwater management program, it shall notify the public entity in writing and shall specify the deficiencies of administration and enforcement. If the public entity has not taken corrective action within 30 days of receipt of notification from the Commission, the Commission shall assume administration and enforcement of the program until such time as the public entity indicates

its willingness and ability to correct the deficiencies identified by the Commission and resume administration and enforcement of the program.

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); S.L. 2011-220.

15A NCAC 02H .1019 COASTAL COUNTIES

The purpose of this Rule is to protect the surfaces water from the impact of stormwater runoff from new development on the quality of various classifications of surface waters in the 20 Coastal Counties.

- (1) **IMPLEMENTING AUTHORITY.** This Rule shall be implemented by:
 - (a) local governments and other entities within the 20 Coastal Counties that are required to implement a Post-Construction program as a condition of their NPDES permits;
 - (b) local governments and state agencies that are delegated to implement a stormwater program pursuant to G.S. 143-214.7(c) and (d); and
 - (b) the Division in all other areas where this Rule applies.
- (2) **APPLICABILITY OF THIS RULE.** This Rule shall apply to the following types of developments within the Coastal Counties:
 - (a) all developments that require a Sediment and Erosion Control Plan pursuant to G.S. 113A-57;
 - (b) all developments that require a Coastal Area Management Act (CAMA) Major Development Permit pursuant to G.S. 113A-118; and
 - (c) developments that do not require either a Sediment and Erosion Control Plan or a CAMA Major Development Permit but meet one of the following criteria:
 - (i) nonresidential developments that propose to cumulatively add 10,000 square feet or more of built-upon area after the effective date of this Rule; or
 - (ii) residential developments that are within ½ mile of and draining to SA waters and propose to cover 12 percent or more of the undeveloped portion of the property with built-upon area.
- (3) **EFFECTIVE DATES.** The effective dates are as follows:
 - (a) for prior Rule .1000 of this Section, January 1, 1988;
 - (b) for prior Rule .1005 of this Section, September 1, 1995; and
 - (c) for S.L. 2008-211, October 1, 2008.
- (4) **MDC FOR ALL PROJECTS.** In addition to the requirements of this Rule, development projects shall also comply with the MDC as set forth in Rule .1003 of this Section.
- (5) **DETERMINATION OF WHICH COASTAL STORMWATER PROGRAM APPLIES.**
 - (a) **SA WATERS.** The SA Waters requirements shall apply to development activities located within one-half mile of and draining to waters classified as SA per 15A NCAC 02B .0301.
 - (i) The SA boundary shall be measured from either the landward limit of the top of bank or the normal high water level. In cases where a water is listed on the Schedule of Classifications, but the applicant provides documentation from the Division of Water Resources or the U.S. Army Corps of Engineers that the water is not present on the ground, the applicant shall not be subject to the SA requirements of this Rule.
 - (ii) SA waters that have a supplemental classification of ORW shall be subject to additional special stormwater provisions per Items (6), (7) and (8) of this Rule.
 - (iii) Projects that are partly located within an SA waters boundary shall follow the SA waters requirements in Item (6) of this Rule for that portion of the project that is inside the SA waters boundary and shall follow the Other Coastal Waters requirements of Item (6) of this Rule for the portion of the project that is outside the boundary.
 - (iv) An SCM with any portion of its drainage area located within the SA waters boundary shall be designed to meet SA waters requirements.
 - (b) **FRESHWATER ORW.** Freshwater ORW requirements shall apply to development activities that drain to waters classified as B-ORW and C-ORW per 15A NCAC 02B .0301.
 - (i) Projects that are partly located within a freshwater ORW boundary shall follow the freshwater ORW requirements in Item (6) of this Rule for that portion of the project that is inside the freshwater ORW boundary and shall follow the Other Coastal Waters requirements of Item (6) of this Rule for the portion of the project that is outside the boundary.
 - (ii) An SCM with any portion of its drainage area located within the freshwater ORW boundary shall be designed to meet freshwater ORW requirements.
 - (c) **OTHER COASTAL WATERS.** If a receiving stream does not meet the applicability requirements for Sub-Items (5)(a) or (b) of this Rule, then it shall governed by other coastal water requirements set forth in this Rule.
- (6) **STORMWATER REQUIREMENTS.** Depending on the applicable program pursuant to Item (5) of this Rule, the following stormwater requirements shall apply:
 - (a) **SUMMARY OF COASTAL PROGRAM REQUIREMENTS.** The requirements associated with the Coastal Stormwater Program shall be in accordance with the following table.

Program that Applies	Maximum BUA for Low Density	Required Storm Depth for High Density Projects	Additional Special Provisions
SA-HQW	12%	95 th percentile storm event	SCMs for High Density SA Projects per Item (7) of this Rule
SA-ORW	12%	95 th percentile storm event	SCMs for High Density SA Projects per Item (7) of this Rule; and Density Requirements for SA-ORW Projects per Item (8) of this Rule
B-ORW or C-ORW	12%	90 th percentile storm event	None
Other coastal water	24%	90 th percentile storm event	None

(b) BUILT-UPON AREA THRESHOLDS. A project shall be considered a low density project if it contains no more than the specified percentage of built-upon area and meets the low density criteria set forth in Rule .1003(2) of this Section; otherwise, a project shall be considered high density and shall meet the criteria set forth in Rule .1003(3) of this Section.

(c) REQUIRED STORM DEPTH. For high density projects subject to SA waters requirements, the required storm depth shall be the 95th percentile storm event. For high density projects subject to Freshwater ORW and other Coastal Waters requirements, the required storm depth shall be the 90th percentile storm event.

(d) VEGETATED SETBACKS. For all projects within the Coastal Counties, vegetated setbacks from perennial waterbodies, perennial streams, and intermittent streams shall be at least 50 feet in width for new development and at least 30 feet in width for redevelopment and shall comply with Rule .1003(4) of this Section.

(7) SCMS FOR SA HIGH DENSITY PROJECTS REQUIREMENTS. High density projects subject to SA waters requirements shall use one of the following approaches for treating and discharging stormwater:

(a) RUNOFF VOLUME MATCH. The project shall meet runoff volume match requirements for the 95th percentile storm event as set forth in Rule .1003(3)(a)(ii) of this Section. Runoff volume in excess of the 95th percentile storm event shall be released at a non-erosive velocity at the edge of the vegetated setback.

(b) RUNOFF TREATMENT WITH NON-DISCHARGING SCMs. SCM(s) shall treat the stormwater from the entire project without discharging during the 95th percentile storm event as set forth in Rule .1003(3)(a)(i) of this Section. The runoff volume in excess of the 95th percentile storm event shall be released at a non-erosive velocity at the edge of the vegetated setback or to an existing stormwater drainage system.

(c) RUNOFF TREATMENT WITH DISCHARGING SCMs. SCM(s) shall treat the stormwater from the entire project during the 95th percentile storm event as set forth in Rule .1003(3)(a)(i) of this Section and meet the following requirements:

(i) a licensed professional shall provide documentation that it is not feasible to meet the MDC for infiltrations systems as set forth in Rule .1051 of this Section;

(ii) the stormwater shall be filtered through a minimum of 18 inches of sand prior to discharge;

(iii) the discharge from the SCM during the 95th percentile storm event shall be directed to either a level spreader-filter strip designed as set forth in Rule .1059 of this Section, a swale that fans out at natural grade, or a natural wetland that does not contain a conveyance to SA waters; and

(iv) the runoff volume in excess of the 95th percentile storm event shall be released at a non-erosive velocity at the edge of the vegetated setback or to an existing stormwater drainage system.

(8) DENSITY REQUIREMENTS FOR SA-ORW PROJECTS. The following shall apply:

(a) For the entire project, the percentage built-upon area shall not exceed 25 percent.

(b) For the portion of a project that is within 575 feet of SA-ORW waters, the percentage built-upon area shall not exceed 25 percent for high density projects and shall not exceed 12 percent for low density projects.

Authority G.S. 143-214.1; 143-214.5; 143-215.3(a)(1).

15A NCAC 02H .1020 UNIVERSAL STORMWATER MANAGEMENT PROGRAM

(a) Adoption of the Universal Stormwater Management Program (USMP) shall be made at the option of a local government by adopting an ordinance that complies with this Rule and the requirements of 15A NCAC 02B .0104(f). The Commission shall approve local ordinances if it determines that the requirements of the local ordinance meet or exceed the provisions of this Rule and the requirements of 15A NCAC 02B .0104(f). A model ordinance for the USMP shall be available from the Division. Administration and implementation of the USMP shall be the responsibility of the adopting local government within its jurisdiction. Local governments located within one of the 20 Coastal Counties may elect to have the Division administer and implement the USMP, either in whole or in part, within their

jurisdiction following their adoption of the program. Adoption of the USMP may not satisfy water quality requirements associated with the protection of threatened or endangered species or those requirements associated with a Total Maximum Daily Load (TMDL). The requirements of the USMP shall supersede and replace all other existing post-construction stormwater requirements within that jurisdiction, as specified in Paragraph (b) of this Rule.

(b) With the exceptions noted in Paragraph (c) of this Rule, the requirements specified in this Rule shall replace the following post-construction stormwater control requirements:

- (1) Water Supply (WS) Watershed II (WS II) (15A NCAC 02B .0214(3)(b)(i));
- (2) WS Watershed II Critical Area (WS II CA) (15A NCAC 02B .0214(3)(b)(ii));
- (3) WS Watershed III (WS III) (15A NCAC 02B .0215(3)(b)(i));
- (4) WS Watershed III Critical Area (WS III CA) (15A NCAC 02B .0215(3)(b)(ii));
- (5) WS Watershed IV (WS IV) (15A NCAC 02B .0216(3)(b)(i));
- (6) WS Watershed IV Critical Area (WS IV CA) (15A NCAC 02B .0216(3)(b)(ii));
- (7) High Quality Waters (HQW) for Freshwaters (15A NCAC 02H .1021);
- (8) Outstanding Resource Waters (ORW) for Freshwaters (15A NCAC 02H .1021);
- (9) Outstanding Resource Waters (ORW) for Saltwaters (15A NCAC 02H .1019);
- (10) Shellfishing (SA) (15A NCAC 02H .1019);
- (11) Post-Construction Stormwater Requirements of the NPDES MS4 Program (15A NCAC 02H .1017);
- (12) Coastal Counties Stormwater Requirements in 15A NCAC 02H .1019;
- (13) Stormwater Management Plans for 401 Water Quality Certifications under 15A NCAC 02H .0500;
- (14) Catawba Buffer Rules (15A NCAC 02B .0243); and
- (15) Urban Stormwater Management Requirements of the Randleman Lake Water Supply Watershed Rules (15A NCAC 02B .0251).

(c) As mandated in 15A NCAC 02H .0506(b)(5) and (c)(5), the Director may review and require amendments to proposed stormwater control plans submitted under the provisions of the 401 Certification process in order to ensure that the proposed activity will not violate water quality standards. (d) Adoption of the USMP shall not affect the requirements specified in 15A NCAC 02B .0214(3)(b)(i)(I), 02B .0214(3)(b)(ii)(C) and (D), 15A NCAC 02B .0215(3)(b)(i)(I), 02B .0215(3)(b)(ii)(C) and (D), and 15A NCAC 02B .0216(3)(b)(ii)(C) and (D).

(e) The Catawba Buffer Rules shall be superseded in those areas where the buffers are contained within the jurisdiction of another stormwater program listed in Paragraph (b) of this Rule and the requirements of that program are replaced by the USMP. For the watershed that drains to Lake James, which is not contained within the jurisdiction of another stormwater program, the Catawba Buffer Rules shall be superseded if the USMP is implemented in the entire area within five miles of the normal pool elevation of Lake James.

(f) The implementation of the USMP shall supersede the Urban Stormwater Management Requirements of the Randleman Lake Water Supply Watershed in 15A NCAC 02B .0251, but USMP implementation does not affect the Randleman Lake Water Supply Watershed: Protection and Maintenance of Riparian Areas requirements specified in 15A NCAC 02B .0250.

(g) Coastal Counties Requirements. All development activities located in one of the 20 Coastal Counties that disturb 10,000 square feet or more of land, including projects that disturb less than 10,000 square feet of land that are part of a larger common plan of development or sale, shall control the runoff from the first one and one half inch of rainfall to the level specified in Paragraph (i) of this Rule. In addition, all impervious surfaces, except for roads, paths, and water dependent structures, shall be located at least 30 feet landward of all perennial waterbodies, perennial streams, and intermittent streams. In addition to the other requirements specified in this Paragraph, all development activities that are located within 575 feet of waters designated by the Commission as shellfishing waters shall be limited to a maximum impervious surface density of 36 percent. Redevelopment activities shall not be required to comply with the requirements of this Paragraph.

(h) Non-Coastal Counties Requirements. All residential development activity that is located in one of the 80 Non-Coastal Counties that disturbs one acre or more of land, including residential development that disturbs less than one acre of land that is part of a larger common plan of development or sale, and all non-residential development activity that is located in one of the 80 Non-Coastal Counties that disturbs ½ acre or more of land, including non-residential development that disturbs less than ½ acre of land that is part of a larger common plan of development or sale, shall control the runoff from the first one inch of rainfall as specified in Paragraph (i) of this Rule. Except as allowed in this Paragraph, no new impervious or partially pervious surfaces, except for roads, paths, and water dependent structures, shall be allowed within the one percent Annual Chance Floodplain as delineated by the North Carolina Floodplain Mapping Program in the Division of Emergency Management available at no cost at <http://www.ncfloodmaps.com/>. For perennial and intermittent streams that do not have a floodplain delineated by the Floodplain Mapping Program, all development activities subject to this Rule shall be located at least 30 feet landward of all perennial waterbodies, perennial streams, and intermittent streams. In addition to the other requirements specified in this Paragraph, all development activities that are located within the area designated by the Commission as a Critical Area of a Water Supply Watershed as defined in 15A NCAC 02B .0202 shall be limited to a maximum impervious surface density of 36 percent. Redevelopment of residential structures within the one percent Annual Chance Floodplain shall be allowed. Redevelopment of non-residential structures within the one percent Annual Chance Floodplain shall be allowed provided that less than ½ acre is disturbed during the redevelopment activity. Redevelopment activities outside of the one percent Annual Chance Floodplain shall not be required to comply with the requirements of this Paragraph.

(i) Structural stormwater controls required under Paragraphs (g) and (h) of this Rule shall meet the following criteria:

- (1) Achieve either runoff treatment or runoff volume match in accordance with Paragraphs (g) and (h) of this Rule; and
- (3) (A) For SCMs designed to achieve runoff treatment, the required storm depth shall be one and one half inch in the Coastal Counties and one inch in the Non-Coastal Counties.

(B) For SCMs designed to achieve runoff volume match, the post-development runoff volume shall not exceed the pre-development runoff volume for the 90th percentile storm.

(2) Meet the requirements for all projects subject to stormwater rules as set forth in Rule .1003 of this Section.

(j) For the purposes of this Rule, a surface water shall be deemed present if the feature is shown on either the most recent published version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture available at no cost at <http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/survey/> or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS) available at no cost at <http://www.usgs.gov/pubprod/>. Relief from this requirement shall be allowed when surface waters are determined not to be present in accordance with the provisions of 15A NCAC 02B .0233 (3)(a).

(k) Local governments that implement the USMP shall require recorded deed restrictions and protective covenants that ensure that the project will be maintained consistent with approved plans.

(l) Local governments that implement the USMP shall require an operation and maintenance plan that ensures the operation of the structural stormwater control measures required by the USMP. The operation and maintenance plan shall require the owner of each structural control to submit a maintenance inspection report on each structural stormwater control measure annually to the local program.

(m) In addition to the other measures required in this Rule, all development activities located in one of the 20 Coastal Counties that disturb 10,000 square feet or more of land within ½ mile and draining to SA waters shall:

(1) use stormwater control measures that result in fecal coliform die-off and that control to the maximum extent practicable sources of fecal coliform while complying with Paragraph (f) of this Rule; and

(2) prohibit new direct points of stormwater discharge to SA waters or expansion (increase in the volume of stormwater flow through conveyances or increase in capacity of conveyances) of existing stormwater conveyance systems that drain to SA waters. Any modification or redesign of a stormwater conveyance system within the contributing drainage basin shall not increase the net amount or rate of stormwater discharge through existing outfalls to SA waters. Diffuse flow of stormwater at a non-erosive velocity to a vegetated buffer or other natural area capable of providing effective infiltration of the runoff from the 1-year, 24-hour storm shall not be considered a direct point of stormwater discharge. Consideration shall be given to soil type, slope, vegetation, and existing hydrology when evaluating infiltration effectiveness.

(n) In addition to the other measures required in this Rule, development activities draining to trout (Tr) waters shall use stormwater control measures that do not cause an increase in the receiving water temperature while still incorporating the requirements specified in Paragraph (i) of this Rule.

(o) The Division, upon determination that a local government is failing to implement or enforce the approved local stormwater program, shall notify the local government in writing of the local program's deficiencies. If the local government has not corrected the deficiencies within 90 days of receipt of written notification from the Division, then the Division shall implement and enforce the provisions of this Rule.

(p) Development activities conducted within a jurisdiction where the USMP has been implemented may take credit for the nutrient reductions achieved by utilizing diffuse flow in the one percent Annual Chance Floodplain to comply with the nutrient loading limits specified within NSW Rules where the one percent Annual Chance Floodplain exceeds the 50-foot Riparian Buffers. Development activities occurring where the USMP has been implemented but there is no delineated one percent Annual Chance Floodplain may take credit for the nutrient reductions achieved by utilizing diffuse flow into a vegetated filter strip that exceeds the 50-foot Riparian Buffer by at least 30 feet and has a slope of five degrees or less.

(q) The following special provisions of the USMP apply only to federal facilities and Department of Defense (DoD) installations. Federal facilities and DoD installations may adopt the USMP within their boundaries by submitting a letter to the Chairman of the Commission that states that the facility in question has adopted controls that comply with the requirements of this Rule and with the requirements of 15A NCAC 02B .0104(f). In lieu of the protective covenants and deed restrictions required in Paragraph (k) of this Rule, federal facilities and DoD installations that choose to adopt the USMP within their boundaries shall incorporate specific restrictions and conditions into base master plans or other appropriate instruments to ensure that development activities regulated under this Rule will be maintained in a manner consistent with the approved plans.

(r) Implementation of this USMP does not affect any other rule or requirement not specifically cited in this Rule.

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a).

15A NCAC 02H .1021 NON-COASTAL COUNTY HIGH QUALITY WATERS (HQW) AND OUTSTANDING RESOURCE WATERS (ORW)

The purpose of this Rule is to minimize the impact of stormwater runoff from development on the water quality of surface waters and to protect their designated best usages in management zones of Non-Coastal County High Quality Waters (HQW) and Outstanding Resource Waters (ORW).

(1) IMPLEMENTING AUTHORITY. This rule shall be implemented by the Division.

(2) APPLICABILITY. This Rule shall apply to development activities outside of Coastal Counties that are required to obtain a Sedimentation and Erosion Control Plan and are either:

(a) within one mile of and draining to waters classified as HQW except that development located in WS-I or WS-II watersheds as set forth in 15A NCAC 02B .0212 and .0214 are excluded from the requirements of this Rule; or

(b) draining to waters classified as ORW.

(3) EFFECTIVE DATE. The stormwater requirements contained in this Rule became effective on September 1, 1995.

(4) GENERAL REQUIREMENTS FOR NEW DEVELOPMENT. In addition to the requirements of this Rule, development shall also comply with the requirements for all projects set forth in Rule .1003 of this Section.

- (5) PROJECT DENSITY. A project shall be considered a low density project if it contains no more than 12 percent built-upon area or no more than one dwelling unit per acre and meets the low density criteria set forth in Rule .1003(2) of this Section; otherwise, a project shall be considered high density.
- (6) REQUIRED STORM DEPTH. For high density projects, the required treatment volume shall be based on a storm depth of one inch. For high density projects that are designed to achieve runoff volume match, the post-development runoff volume shall not exceed the pre-development runoff volume for the 90th percentile storm.
- (7) VEGETATED SETBACKS. Vegetated setbacks from perennial waterbodies, perennial streams, and intermittent streams shall be at least 30 feet in width for both low and high density developments and shall comply with Rule .1003(4) of this Section.
- (8) ADDITIONAL PROTECTION. The requirements of this Rule serve as the minimum conditions that shall be met by development activities. More stringent stormwater requirements may be developed by the Division on a case-by-case basis during permit review and approval where the Division determines that additional measures are necessary to:
 - (i) protect water quality standards;
 - (ii) maintain present and anticipated best usages; or
 - (iii) protect outstanding resource values pursuant to 15A NCAC 02B .0225(b).

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a).

15A NCAC 02H .1031 REVIEW AND APPROVAL NEW STORMWATER TECHNOLOGIES (NEST) PROGRAM

This Rule sets forth the requirements for review and approval of stormwater control measures not otherwise described in these rules under the Division's New Stormwater Technologies (NEST) Program. The Division may consider and review new stormwater technologies as meeting the requirements of the State post-construction stormwater program in accordance with this rule. Applicants who complete the process set forth in this Rule may have proposed stormwater technologies approved for use throughout the state without site-specific monitoring requirements.

- (1) PERFORMANCE STANDARD FOR THE NEST PROGRAM. Stormwater technologies shall achieve at least one of the following:
 - (a) discharge at a median effluent concentration of no greater than 25 mg/L Total Suspended Solids (TSS) when the median influent concentration of TSS is between 50 and 150 mg/L; or
 - (b) reduce the annual cumulative load of TSS by 85% or greater. Cumulative load reduction shall be determined pursuant to *Urban Stormwater BMP Performance Monitoring*. GeoSyntec Consultants, Urban Drainage and Flood Control District, 2002, Washington DC, (Office of Water (4303T), US Environmental Protection Agency, EPA-821-B-02-001) available at no cost at <http://www2.epa.gov/eg/industrial-wastewater-studies-miscellaneous>.
- (2) NEST PROGRAM STEPS. The process for a NEST to be considered by the Division shall be as follows:
 - (a) The applicant shall submit a NEST Program Application to the Division that includes the items listed in Item (3) of this Rule.
 - (b) The Division shall accept the device into the NEST Program if it finds that the application is complete and that the NEST has the capability of meeting the performance standard in Item (1) of this Rule. The Division shall notify the applicant in writing that the device has been accepted into the NEST Program.
 - (c) The NEST shall be installed on the proposed research sites and an entity other than the applicant shall conduct monitoring in accordance with Item (4) of this Rule. Research that has already been conducted may be used to demonstrate that the NEST achieves the performance standard in Item (1) of this Rule provided that the research meets all of the requirements in Item (4) of this Rule.
 - (d) The applicant shall submit a NEST Final Report pursuant to Item (5) of this Rule to the Division for review.
 - (e) The Division shall review the NEST Final Report and determine whether the applicant has demonstrated that the NEST will meet the performance standards stated in Item (1) of this Rule.
 - (f) If the NEST Final Report is approved, then the Division shall list the device on its web site as an approved NEST. The web site shall include the MDC and pollutant removal credit associated with the NEST.
 - (g) If a device is accepted into the NEST Program but the applicant does not complete monitoring within 36 months after the date on which the applicant was notified of acceptance, then the Division shall be deemed to have been withdrawn.
 - (h) During the application, monitoring, reporting, and evaluation processes, NEST may not be used as an SCM to meet the requirements of this Section on any sites other than the research sites.
- (3) NEST PROGRAM APPLICATION. The following information shall be provided to the Division when an applicant applies to the NEST Program.
 - (a) a NEST Program Application Form This form can be obtained on the Division's website at <http://portal.ncdenr.org/web/lr/stormwater> and shall include the following information:
 - (i) the name, address and contact information of the applicant;
 - (ii) the name, credentials, address and contact information of the entity conducting the research;
 - (iii) stormwater project number, if applicable;
 - (iv) the density of the entire project and of each drainage area;
 - (v) the name and certification information on the laboratory that will be used;
 - (vi) information about applicability of other State and federal environmental permits to the project including CAMA Major Development Permits, NPDES, Sedimentation and Erosion Control Plan, and Section 404/401 permits; and

- (vii) a description of the NEST that will be used on the project;
 - (b) a description of physical, chemical, and/or biological treatment mechanisms employed;
 - (c) design drawings with dimensions for the test sites;
 - (d) a description of construction materials, including a description of any components of the treatment system that may contain nutrients or metals that might contribute to increased pollutant concentrations in the effluent;
 - (e) proposed MDC for the NEST that include all requirements for siting; site preparation, design, and construction; and maintenance activities and frequencies that are necessary to insure that the device meets the stated pollutant removal rates in perpetuity, including the following:
 - (i) a description of any pretreatment requirements or recommendations;
 - (ii) a description of all sizing methodology and technical design specifications based on a design maintenance frequency no more frequent than once per year;
 - (iii) a description of bypass provisions incorporated in the equipment or installation; and
 - (iv) maintenance procedures.
 - (f) expected treatment capabilities, including existing monitoring studies that have been performed on the NEST;
 - (g) a description of the research site that will be used to demonstrate the NEST's effectiveness as a stormwater treatment device, including the Hydrologic Soil Group on the site;
 - (h) a Quality Assurance Project Plan conforming to the requirements in Item (4) of this Rule, describing the monitoring procedures and protocols that will be used; and
 - (i) a timeframe for completion of the monitoring and for submittal of the report to the Division for review.
- (4) NEST MONITORING REQUIREMENTS. The following monitoring requirements shall be met:
- (a) A minimum of two sites shall be monitored to demonstrate the performance of the NEST. A minimum of one site shall be located within the state of North Carolina. The second site shall be in an area with similar soils, climate, and weather patterns as found in North Carolina. If one or more of the research sites is in Hydrologic Soil Group A soils, then the technology may be approved for use in Hydrologic Soil Group A only;
 - (b) The monitoring shall include sampling of the NEST's performance for a minimum of 15 storm events over the course of a one-year period, with a minimum of three storm events in each season. Storm events monitored must be a minimum of 0.25 inches of rainfall;
 - (c) Full storm hydrograph flow-weighted composite sampling of both the influent and effluent shall be monitored. The median influent concentration of Total Suspended Solids (TSS) shall be between 50 and 150 mg/L;
 - (d) Seventy percent or more of the hydrograph's volume shall be represented by the sample collection for each storm event;
 - (e) In addition to TSS, the following parameters shall be monitored: Total Kjeldahl Nitrogen (TKN), nitrate, Total Phosphorus (TP), and runoff volume into and out of the NEST. Other parameters may be monitored if the applicant is seeking approval for removal rates of those pollutants; and
 - (f) Sampling, laboratory analysis, and data interpretation shall be conducted by an independent third party. The laboratory that is used shall be certified in accordance with Section .0800 of this Subchapter.
- (5) NEST FINAL REPORT. The following items shall be included in the NEST Final Report that the applicant submits to the Division:
- (a) as-built plans and details showing the site and the NEST from all monitoring sites;
 - (b) a certification from the entity conducting the research that the Quality Assurance Project Plan approved by the Division was complied with during the conduct of the trial installations;
 - (c) raw water quality data, including reports from the laboratory;
 - (d) summary of water quality data and removal calculations;
 - (e) influent and effluent volume data from each discrete storm event;
 - (f) storm event information, including storm depth, date, duration, antecedent period, peak five-minute rainfall intensity;
 - (g) a summary and interpretation of the monitoring results;
 - (h) statistical analysis of the monitoring data;
 - (i) proposed runoff volume reduction rates for the NEST as well as proposed effluent concentration credits for Total Nitrogen (TN) and TP. In addition, proposed effluent concentrations for any other pollutants that have been monitored as part of the NEST Program; and
 - (j) a final list of MDC in the report, with notes on whether the MDC have changed since initial enrollment in the NEST Program.
- (6) AGENCY ACTION ON NEST FINAL REPORT. As a part of this evaluation, the Division shall consider whether the test period loading was representative of likely installation conditions, the reported maintenance activities during the test period, and whether additional pre-treatment measures are necessary in most potential installations. The Division shall take one of the following actions within 90 days of receiving the NEST Final Report:
- (a) If the NEST final report demonstrates that the NEST meets the performance standard in Item (1) of this Rule, then the Division shall allow the NEST to be used as an SCM to meet the requirements of this Section. NESTs that have demonstrated compliance with Item (1) of this Rule shall be published on the Division's website at <http://portal.ncdenr.org/web/lr/stormwater>. The website shall include the NEST final report on the NEST.

- (b) If the NEST final report is inconclusive about whether the NEST meets the performance standard in Item (1) of this Rule, then the Division shall require additional research studies before the NEST may be approved to be used as an SCM to meet the requirements set forth in this Section. The additional research studies shall comply with Item (4) of this Rule, and a second NEST final report that complies with Item (5) of this Rule shall be submitted to the Division for review and approval.
- (c) If the NEST final report demonstrates that the NEST does not meet the performance standard in Item (1) of this Rule, then the Division shall take the following actions:
 - (i) The Division shall consider whether the NEST may be approved as a secondary SCM that could be used in conjunction with a primary SCM on a site;
 - (ii) The Division shall not allow the NEST to be used as a stand-alone SCM to meet the requirements set forth in this Section on future projects; and
 - (iii) The Division shall allow the continued use of the NEST on the research sites provided that the NEST Final Report establishes that the NEST discharges at a median effluent concentration for TSS of 35 mg/L or less or reduces the annual cumulative load of TSS by 65 percent or greater. If the NEST does not meet this performance standard, then it shall be replaced at the research sites by an approved SCM that is designed, constructed, and maintained in accordance with the rules of this Section.

Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1).

15A NCAC 02H .1040 PERMIT ADMINISTRATION

This Rule applies to the permitting processes set forth in Rules .1041 through .1045 of this Section.

- (1) SIGNATURES ON PERMIT APPLICATION FORMS. Application forms shall have an original signature by one of following entities unless the application is accompanied by a letter of authorization signed by the appropriate authority as designated in Sub-Items (a) through (d) of this Item authorizing the signature of another entity:
 - (a) in the case of a corporation, by a principal executive officer of the level of vice-president or his authorized representative. In the case of a limited liability corporation (LLC), by a manager or company official as those terms are defined in G.S. 57D "North Carolina Limited Liability Company Act;"
 - (b) in the case of a partnership, by a general partner or a managing partner. In the case of a limited partnership, by a general partner;
 - (c) in the case of a proprietorship, by the proprietor(s); or
 - (d) in the case of a municipal, state, or other public entity, by either a principal executive officer, ranking official, or other duly authorized employee.
- (2) PERMIT PROCESSING TIMES. The Division shall process permit applications and additional or amended information pursuant to G.S. 143-215.1.
- (3) DELEGATION. For permits issued by the Division, the Director is authorized to delegate to Division staff any or all of the functions contained in these Rules except the following:
 - (a) denying a permit application;
 - (b) revoking a permit if such revocation is not requested by the permittee;
 - (c) modifying a permit not requested by the permittee;
 - (d) issuing a Director's Certification; and
 - (e) calling for a public notice or meeting.
- (4) PERMIT ISSUANCE. The following shall apply to stormwater management permits issued by the Division:
 - (a) Stormwater management permits issued for low density projects shall not require permit renewal;
 - (b) Stormwater management permits issued for projects that require the construction of engineered stormwater control measures shall be issued for a period not to exceed 8 years; and
 - (c) Stormwater management permits shall be issued to the property owner or to a lessee, purchaser, or developer with the written permission of the property owner, and shall cover the entire project.
- (5) PERMIT DENIAL. If the Director denies a permit, the letter of denial shall state the reason(s) for denial and the Director's estimate of the changes in the applicant's proposed activities or plans that would be required in order that the applicant may obtain a permit. Permit applications may be denied where the proposed project will result in noncompliance with:
 - (a) the purposes of G.S. 143, Article 21;
 - (b) the purposes of G.S. 143-215.67(a);
 - (c) rules governing coastal waste treatment or disposal, found in Section .0400 of this Subchapter;
 - (d) rules governing "subsurface disposal systems," found in 15A NCAC 18A .1900. Copies of these Rules are available from the North Carolina Division of Public Health, 1632 Mail Service Center, Raleigh, North Carolina 27699-1632; or
 - (e) rules governing groundwater quality standards found in Subchapter 02L of this Chapter.
- (6) PERMIT REVOCATION OR MODIFICATION. Permits issued pursuant to these Rules are subject to revocation, or modification by the Director upon 60 days' written notice by the Director in whole or in part for good cause including the following:
 - (a) violation of any terms or conditions of the permit;
 - (b) obtaining a permit by misrepresentation or failure to disclose all relevant facts; or
 - (c) refusal of the permittee to allow authorized employees of the Department of Environmental Quality, upon presentation of credentials;

- (i) to enter upon permittee's premises in which any records are required to be kept under terms and conditions of the permit;
 - (ii) to have access to any and all records required to be kept under terms and conditions of the permit;
 - (iii) to inspect any monitoring equipment or method required in the permit; or
 - (iv) to sample any discharge of pollutants.
- (7) DIRECTOR'S CERTIFICATION. With the exception of the fast track permitting process, projects that do not comply with the requirements of this Section may be approved on a case-by-case basis if the project is certified by the Director that water quality standards and best usages will not be threatened. Approval of alternative designs for SCMs that do not meet all the MDC shall be in accordance with Rule .1003(g) of this Section. Approval of new stormwater technologies shall be in accordance with Rule .1031 of this Section. The applicant shall provide information that demonstrates to the Director that:
 - (a) there are practical difficulties or hardships due to the physical nature of the project such as its size, shape or topography that prevent strict compliance with this Section; and
 - (b) water quality standards and best usages will be protected, including development plans and specifications for SCMs that will be installed in lieu of the requirements of this Section or information that demonstrates that the project is located such that impacts to surface waters from pollutants present in stormwater from the site will be mitigated.
- (8) PUBLIC NOTICE. The Director is authorized to call for a public notice or meeting to solicit and receive comments from other regulatory agencies and the public to obtain additional information needed to complete the review of either the stormwater permit application or the stormwater conditions. If comments are solicited, notice shall be posted on the Division's website and shall provide the public a period of at least 30 calendar days to submit comments to the Director. The permit application shall be included in the notice published on the Division's website.
- (9) CONTESTED CASE HEARING. An applicant whose application is denied or who is issued a permit subject to conditions that are not acceptable to the applicant may seek a contested case hearing pursuant to G.S. 150B-23.
- (10) COMPLIANCE. Any individual or entity found to be in noncompliance with the provisions of a stormwater management permit or the requirements of this Section is subject to enforcement procedures as set forth in G.S. 143, Article 21.

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a); 143-215.3D; 143-215.6A; 143-215.6B; 143-215.6C.

15A NCAC 02H .1041 GENERAL PERMITS

- (a) In accordance with the provisions of G.S. 143-215.1(b)(3) and (4), general permits may be developed by the Division and issued by the Director for categories of activities covered in this Section. Each of the general permits shall be issued separately pursuant to G.S. 143-215.1, using all procedural requirements specified for State permits including application and public notice.
- (b) General permits may be written to regulate categories of activities that:
 - (1) involve the same or substantially similar operations;
 - (2) have similar characteristics;
 - (3) require the same limitations or operating conditions;
 - (4) require the same or similar monitoring; and
 - (5) are adequately controlled by a general permit as determined by the Director.
- (c) General permit coverage shall be available to activities, including:
 - (1) construction of bulkheads and boat ramps;
 - (2) installation of sewer lines with no proposed built-upon areas;
 - (3) construction of an individual single family residence; and
 - (4) other activities that, as determined by the Director, meet the criteria of this Rule.
- (d) General permits may be modified, terminated, revoked, and reissued in accordance with the authority and requirements of Rule .1040 of this Section.
- (e) Procedural requirements for application and permit approval, unless specifically designated as applicable to persons proposed to be covered under the general permits, apply only to the issuance of the general permits.
- (f) After issuance of the general permit by the Director, persons engaged in activities in the applicable categories may request coverage under the general permit, and if an activity falls within a category of activities governed by the general permit the Director or his designee shall grant appropriate coverage. All activities that receive a "Certificate of Coverage" for that category of activity shall be deemed governed by that general permit.
- (g) Activities covered under general permits, developed in accordance with this Rule, shall be subject to the standards and limits, management practices, enforcement authorities, and rights and privileges specified in the general permit.
- (h) No provision in any general permit issued under this Rule shall be interpreted to allow the permittee to violate state water quality standards or other applicable environmental standards.
- (i) For a general permit to apply to an activity, a Notice of Intent to be covered by the general permit shall be submitted to the Division using forms provided by the Division on the Division's website at <http://portal.ncdenr.org/web/lr/stormwater>. The Notice of Intent shall comply with the application procedures specified in Rules .1040 and .1042 of this Section, as appropriate. In addition, the Notice of Intent shall include the following:
 - (1) project name and physical location;
 - (2) receiving stream name and classification;
 - (3) total project area above mean high water;
 - (4) total amount of proposed built-upon area;

- (5) description of best management practices employed at the project site;
- (6) two sets of site and grading plans; if applicable, plans shall show wetland delineation and the "AEC" line as established by the North Carolina Coastal Resources Commission pursuant to 15A NCAC 07H; and
- (7) location of the project indicated on a U.S. Geological Survey (USGS) map.

If all requirements are met, coverage under the general permit may be granted. If all requirements are not met, or the Director determines the activity is not governed by the general permit, then the applicant shall be notified in writing and may apply for an individual permit pursuant to this Section.

(j) General permits may be modified and reissued by the Division as necessary. Activities covered under general permits need not submit new Notices of Intent or renewal requests unless so directed by the Division. If the Division chooses not to renew a general permit, all facilities covered under that general permit shall be notified to submit applications for individual permits.

(k) All previous state water quality permits issued to a facility that can be covered by a general permit, whether for construction or operation, are revoked upon request of the permittee, termination of the individual permit, and issuance of the Certification of Coverage.

(l) Anyone engaged in activities governed by the general permit rules but not permitted in accordance with this Section shall be considered in violation in G.S. 143-215.1.

(m) Any person covered or considering coverage under a general permit may choose to pursue an individual permit for any activity covered by this Section.

(n) The Director may require any person, otherwise eligible for coverage under a general permit, to apply for an individual permit by notifying that person that an individual permit application is required. Notification shall consist of a written description of the reason(s) for the decision, appropriate permit application forms and application instructions, a statement establishing the required date for submission of the application, and a statement informing the person that coverage by the general permit shall automatically terminate upon issuance of the individual permit. Reasons for requiring application for an individual permit include:

- (1) the activity is a significant contributor of pollutants;
- (2) a change in the conditions at the permitted site, altering the constituents or characteristics of the site such that the activity no longer qualifies for coverage under a general permit;
- (3) noncompliance with the general permit;
- (4) noncompliance with other provisions of 15A NCAC 02;
- (5) a change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the activity; or
- (6) a determination that the water of the stream receiving stormwater runoff from the site is not meeting applicable water quality standards.

(o) Any interested person may petition the Director to take an action under Paragraph (n) of this Rule to require an individual permit.

Authority G.S. 143-215.1; 143-215.3(a); 143-215.3D.

15A NCAC 02H .1042 STANDARD PERMITTING PROCESS

This Rule contains the requirements for the application, review, issuance, and denial of state stormwater management permits under the standard permitting process.

- (1) APPLICABILITY. This Rule applies to:
 - (a) any person seeking to permit a development activity subject to a stormwater program implemented by the Division under the standard permitting process; and
 - (b) any person proposing a major modification to an existing state stormwater permit under the standard permitting process.
- (2) APPLICATION SUBMITTAL REQUIREMENTS. The applicant shall submit a nonrefundable permit application fee in accordance with G.S. 143-215.3D and two hard copies and one electronic copy of each of the following:
 - (a) a completed and signed Standard Process Application Form. This form can be obtained on the Division's website at <http://portal.ncdenr.org/web/lr/stormwater> and shall include the following information:
 - (i) current project name and previous project name, if applicable;
 - (ii) information about the physical location of project;
 - (iii) stormwater project number, if assigned;
 - (iv) density of the entire project and each drainage area;
 - (v) information about applicability of other State and federal environmental permits to the project including CAMA Major Development Permits, NPDES, Sedimentation and Erosion Control Plan, and Section 404/401 permits;
 - (vi) description of SCMs that will be used on the project;
 - (vii) information about vested rights, if applicable;
 - (viii) applicant name, address and contact information; and
 - (ix) owner name, address and contact information.
 - (b) when the applicant is a corporation or limited liability corporation (LLC):
 - (i) documentation showing the corporation or LLC is an active corporation in good standing with the NC Secretary of State; and
 - (ii) documentation from the NC Secretary of State or other official documentation showing the titles and positions held by the person who signed the application pursuant to Rule .1040(1) of this Section;

- (c) when the applicant is not the property owner, a copy of a lease agreement, affidavit, or other document showing that the applicant has obtained legal rights to submit a stormwater permit application within the proposed project area;
 - (d) a U.S. Geological Survey (USGS) map identifying the project location and the GPS coordinates for the project. Any areas within the project that are subject to SA, ORW, or HQW stormwater requirements set forth in Rules .1019 and .1021 of this Section shall be shown on the map;
 - (e) a location map with street names and SR numbers to the nearest intersection, with 1, 2, or 3 digit road numbers, legend, and north arrow. This map is not required to be to scale;
 - (f) signed, sealed, and dated calculations and documentation of project density and allocation of built-upon area for future lots, pursuant to Rule .1003 of this Section;
 - (g) signed, sealed, and dated plans of the entire site that are a minimum of 22 inches by 34 inches in size and are at a legible scale. All plan packages shall include:
 - (i) project name, designer, and dates;
 - (ii) dimensioned project or project phase boundary with bearings and distances;
 - (iii) the boundaries of all surface waters, wetlands, regulatory flood zones, protected vegetated setbacks, and protected riparian buffers, or a note on the plans that none exist;
 - (iv) proposed contours and drainage patterns;
 - (v) all existing and proposed built-upon areas, except for built-upon areas associated with single family residential lots and outparcels on commercial developments that are undetermined at the time of project submittal;
 - (vi) subdivision lot lines, maintenance access routes and easements, utility and drainage easements, public rights of way, and SCMs; and
 - (vii) the location of the stormwater collection system, including the locations of the inlets, outlets, pipes, and swales, as well as the inverts and diameters of pipes, excluding driveway culverts.
 - (viii) the Division may accept conceptual stormwater plans in lieu of this Sub-Item when the applicant can demonstrate that SCMs will be properly sized and sited. The detailed plans shall be provided to the Division for review before construction begins;
 - (h) signed, sealed, and dated plan details of each SCM in plan view at a scale of one inch equal to 30 feet or larger and a cross-section view. Other scales may be accepted if the scale is such that all details are legible on a copy. The plan details shall include:
 - (i) dimensions, side slopes, and elevations with a benchmark for clean-out if appropriate;
 - (ii) all conveyance devices, including inlet device, bypass structure, pretreatment area, flow distribution device, underdrains, outlet device, energy dissipater, and level spreader; and
 - (iii) specification sheets for materials used in the SCM, such as planting media, filter media, and aggregate;
 - (i) signed, sealed, and dated planting plans for each SCM that requires a planting plan per the Minimum Design Criteria. The planting plan shall include:
 - (i) plant layout with species names and locations;
 - (ii) total number and sizes of all plant species; and
 - (iii) for stormwater wetlands, a delineation of planting zones;
 - (j) a signed and notarized operation and maintenance agreement;
 - (k) for major modifications, a copy of the recorded deed restrictions and protective covenants limiting the built-upon area so that it does not exceed the capacity of the SCM(s) or the BUA thresholds. For new projects, proposed deed restrictions and protective covenants. A signed agreement to provide final recorded articles shall be accepted when final documents are not available at the time of submittal; and
 - (l) for major modifications, a copy of the recorded drainage easements. For new projects, proposed drainage easements shown on the plans, and a signed agreement to provide final recorded drainage easements if recorded documents are not available at the time of submittal.
- (3) DIVISION REVIEW OF APPLICATIONS.
- (a) The Division shall take one of the following actions:
 - (i) Notify the applicant that additional information is necessary for the Division to determine whether the project complies with this Section. The Division shall provide a list of the additional information that is required. The applicant shall have no more than 30 calendar days from the date the letter was sent to submit the additional information to the Division;
 - (ii) Return the application if the required information listed in Item (2) of this Rule is not provided or if information the Division has requested per Sub-Item (i) of this Sub-Item is not provided within 30 days. In this case, the application shall be deemed denied, and the applicant shall be required to resubmit a complete application with a new application fee;
 - (iii) Issue a permit pursuant to Rule .1040 of this Section; or
 - (iv) Deny a permit pursuant to Rule .1040 of this Section.
 - (b) The Division may require an applicant to submit plans, specifications, and other information it considers necessary to evaluate the application when the information provided is inadequate or incorrect. The applicant shall allow the Division safe access to the records, lands, and facilities of the applicant.
 - (c) If the Division fails to act within the required response times set forth in G.S. 143-215.1, then the application shall be considered approved unless:

- (i) the applicant agrees, in writing, to a longer period;
 - (ii) a final decision is to be made pursuant to a public hearing;
 - (iii) the applicant fails to furnish information necessary for the Division's decision in accordance with Item (2) or Sub-Item (3)(a) of this Rule; or
 - (iv) the applicant refuses the staff access to its records or premises for the purpose of gathering information necessary for the Division's decision.
- (4) **FINAL SUBMITTAL REQUIREMENTS IF COMPLETED PROJECT COMPLIES WITH PERMITTED PLANS.** If the actual built-upon area is equal to or less than that shown on the permitted plans and the constructed SCM is in compliance with the approved plans, then within 30 calendar days of completion of the project the applicant shall submit to the Division one hard copy and one electronic copy of the following:
- (a) a completed and signed Designer's Certification Form that states that the project was built as approved;
 - (b) unless already provided with the permit application, a copy of the recorded deed restrictions and protective covenants limiting the built-upon area so that it does not exceed the capacity of the SCM(s) or the built-upon area thresholds; and
 - (c) a copy of the recorded drainage easements.
- (5) **IF PROJECT DOES NOT COMPLY WITH PERMITTED PLANS.** If the actual built-upon area exceeds that shown on the permitted plans or if the constructed SCM is not in compliance with the approved plans, then within 30 calendar days of completion of the project the applicant shall submit an application for a modified stormwater permit in accordance with the requirements of this Rule. On a case-by-case basis, based on the project's size and complexity, the Division may grant the applicant more time to submit the modification application.

Authority G.S. 143-214.7; 143-215.1; 143-215.3(a); 143-215.3D.

15A NCAC 02H .1043 FAST TRACK PERMITTING PROCESS: AUTHORIZATION TO CONSTRUCT

The purpose of this Rule is to set forth the first of two phases of the Fast-Track Stormwater Permit application process: applying for and receiving an authorization to construct permit. There will be a completeness review during the first phase of this process; however, at project completion, the Division will review the as-built submittal package to determine compliance with the MDCs.

- (1) **APPLICABILITY.** The fast-track permitting process shall be an option for new projects and major modifications of existing projects provided that all of the MDC shall be met upon project completion. Projects that do not qualify for the fast-track permitting process include:
 - (a) projects claiming an exemption from the MDC based on vested rights, a waiver, or Director's certification pursuant to Rule .1040(7) of this Section;
 - (b) modifications to existing projects where the proposed changes to the SCMs will not result in compliance with MDC; and
 - (c) projects that are not in compliance with a current stormwater permit.
- (2) **PROFESSIONAL ENGINEER.** Fast-track projects shall retain a Professional Engineer of record for the entire duration of the project from initial design and application submittal to Division approval of the as-built plans per Rule .1044 of this Section.
- (3) **APPLICATION SUBMITTAL REQUIREMENTS.** The applicant shall submit a permit application fee in accordance with G.S. 143-215.3D and two hard copies and one electronic copy of each of the following:
 - (a) a completed and signed Fast-Track Process Application Form. This form can be obtained on the Division's website at <http://portal.ncdenr.org/web/lr/stormwater> and shall include the following information:
 - (i) current project name and previous project name, if applicable;
 - (ii) information about the physical location of project;
 - (iii) stormwater project number, if assigned;
 - (iv) information about applicability of other State and federal environmental permits to the project including CAMA Major Development Permits, NPDES, Sedimentation and Erosion Control Plan, and Section 404/401 permits;
 - (v) applicant name, address and contact information; and
 - (vi) owner name, address and contact information.
 - (b) when the applicant is a corporation or a limited liability corporation (LLC):
 - (i) documentation showing the corporation or LLC is an active corporation in good standing with the NC Secretary of State; and
 - (ii) documentation from the NC Secretary of State or other official documentation showing the titles and positions held by the persons signed the application pursuant to Rule .1040(1) of this Section;
 - (c) when the applicant is not the property owner, a copy of lease agreements, affidavits, or other documents showing that the applicant has obtained legal rights to submit a stormwater permit application within the proposed project area;
 - (d) a completed and signed Financial Responsibility Ownership Form;
 - (e) a signed agreement that there will be a transferable operation and maintenance agreement initiated prior to completion of construction;
 - (f) a guaranty signed and notarized by the applicant and sealed by the Professional Engineer attesting to the following:
 - (i) The design has been completed in accordance with the MDC;

- (ii) The completed design will meet the MDC and that the percentage built-upon area that is the basis for the design will not be exceeded;
- (iii) The applicant will maintain a Professional Engineer of record for the duration of the project who will prepare and certify the as-built package. If the applicant retains another Professional Engineer before the project is complete, then the applicant shall provide an updated guaranty with the current Professional Engineer's seal; and
- (iv) A Professional Engineer shall inform the Division that he is no longer associated with this project;
- (g) a USGS map identifying the project location and the GPS coordinates for the project. Areas within the project that are subject to SA, Outstanding Resource Waters (ORW) or High Quality Waters (HQW) stormwater requirements set forth in Rules .1019 and .1021 of this Section shall be shown on the map;
- (h) a site plan depicting the boundary of the project or project phase currently being permitted, including the locations of stormwater control measures, streams, wetlands, and buffers; and
- (i) a construction sequence that discusses how any future development on the project may be phased.
- (4) DIVISION REVIEW OF APPLICATIONS. The Division shall take one of the following actions within 30 days of the receipt of the application:
 - (a) Notify the applicant that the project does not qualify for the fast track permitting process pursuant to Item (1) of this Rule. The applicant shall then follow the standard permitting process in accordance with Rule .1042 of this Section;
 - (b) Notify the applicant that additional information is necessary for the Division to determine whether the project complies with this Section. The Division shall provide a list of the additional information required. The applicant shall have 30 calendar days to submit the additional information to the Division;
 - (c) Return the application if the required information listed in Item (3) of this Rule is not provided or if information the Division has requested per Sub-item (4)(b) of this Rule is not provided within 30 days. In this case, the applicant shall be required to resubmit a complete application with a new application fee; or
 - (d) Issue an authorization to construct permit; or
 - (e) Deny the application in accordance with Rule .1040 of this Section.
- (5) EXPIRATION OF THE AUTHORIZATION TO CONSTRUCT PERMIT. The authorization to construct permit shall expire five years after the date of issuance.

Authority G.S. 143.214.7; 143-214.7B; 143-215.1; S.L. 2013-82.

15A NCAC 02H .1044 FAST TRACK PERMITTING PROCESS: FINAL PERMIT

The purpose of this Rule is to set forth the Fast-Track Stormwater permitting process from the approval of the Authorization to Construct Permit to the approval of the Final Fast-Track Permit.

- (1) CONSTRUCTION REQUIREMENTS. Engineering design documents shall be available upon request by the Division.
- (2) PROJECT COMPLETION. Approval of the as-built stormwater plans shall be required before the Sedimentation and Erosion Control Plan for the project may be closed out.
- (3) AS-BUILT PACKAGE SUBMITTAL. The applicant shall submit a permit application fee in accordance with G.S. 143-215.3D and an as-built package within 30 calendar days of completion of the project. The as-built package shall include the following:
 - (a) an As-Built Certification Form signed and sealed by the professional engineer of record and signed by the applicant. This form can be obtained on the Division's website at <http://portal.ncdenr.org/web/lr/stormwater> and shall include the following information:
 - (i) current project name and previous project name, if applicable;
 - (ii) information about the physical location of project;
 - (iii) stormwater project number, if assigned;
 - (iv) density of the entire project and each drainage area;
 - (v) information about applicability of other State and federal environmental permits to the project including CAMA Major Development Permits, NPDES, Sedimentation and Erosion Control Plan, and Section 404/401 permits;
 - (vi) description of SCMs that were used on the project;
 - (vii) applicant name, address and contact information; and
 - (viii) owner name, address and contact information.
 - (b) signed, sealed, and dated as-built calculations for the SCMs and calculations of the project density;
 - (c) when an SCM that has an MDC requiring evaluation of the SHWT or the soil infiltration rate, the applicant shall include the signed, sealed, and dated soils report based on field evaluation indicating the depth of SHWT within the footprint of the SCM, and a map of the boring locations, and boring logs. When the MDC require determination of the infiltration rate, the report shall include the soil type, infiltration rate, and method for determining the infiltration rate. Soils infiltration shall be signed and sealed by a licensed professional;
 - (d) a location map with street names and SR numbers to the nearest intersection with 1, 2, or 3 digit road numbers, legend, and north arrow. This is not required to be to scale;
 - (e) signed, sealed, and dated plans of the entire site that are a minimum 22 by 34 inch in size and are at a legible scale. All plan packages shall include:
 - (i) project name, designer, and dates;

- (ii) dimensioned project or project phase boundary with bearings and distances;
 - (iii) the boundaries of all surface waters, wetlands, regulatory flood zones, protected vegetated setbacks, and protected riparian buffers or a note on the plans that none exist; and
 - (iv) site layout showing all built-upon areas, maintenance access routes and easements, utility easements, drainage easements, public rights of way, stormwater collection systems, and SCMs at ultimate build-out. The information on stormwater collection systems shall include the locations of the inlets, outlets, pipes, and swales, as well as the inverts and diameters of pipes, excluding driveway culverts;
- (f) signed, sealed, and dated as-built plan details of each SCM in both plan view at a scale of one inch equal to 30 feet or larger and cross-section. Other scales may be accepted if the scale is such that all details are legible on a copy. The as-built plan details shall include:
 - (i) dimensions, side slopes, and elevations with a benchmark for clean-out if appropriate;
 - (ii) all conveyance devices, including inlet devices, bypass structures, pretreatment areas, flow distribution devices, underdrain discharge points (if accessible), outlet devices, energy dissipater, and level spreader; and
 - (iii) specification sheets for materials used in the SCM, such as planting media, filter media, and aggregate.
- (g) signed, sealed, and dated as-built planting plans for each stormwater wetland and bioretention cell (or typical) at a scale of one inch equals 20 feet or larger. The planting plan shall include:
 - (i) plant layout with species names and locations;
 - (ii) total number and sizes of all plant species; and
 - (iii) for stormwater wetlands, a delineation of planting zones;
- (h) a copy of the signed, notarized, and recorded operation and maintenance agreement including an estimation of the maintenance cost;
- (i) a copy of the recorded documents, deed restrictions, and protective covenants limiting the built-upon area so that it does not exceed the capacity of the SCM(s) or the built-upon area thresholds;
- (j) a copy of the recorded drainage easements; and
- (k) if there is an increase in built-upon area or a change in SCM design from the permitted plans, then the applicant shall explain the increase or change. The permit applicant has the burden of providing sufficient evidence to ensure that the proposed system complies with all applicable water quality standards and requirements.
- (4) SITE INSPECTION. The Division may perform a site inspection of the project to ensure that the as-built drawings are an accurate depiction of the stormwater management plan. The Division may inspect the site either:
 - (a) before the final stormwater permit is issued by scheduling an inspection with the applicant. If the applicant does not agree to the inspection date selected by the Division, then the Division shall work with the applicant to schedule another inspection date; however, in this case, the Division's deadline for action shall be modified pursuant to Item (5) of this Rule; or
 - (b) after issuance of the final stormwater permit as part of the sediment and erosion control plan close-out.
- (5) DIVISION REVIEW OF THE AS-BUILT PACKAGE. Within 15 calendar days after receipt of the as-built package or of additional or amended information, the Division shall notify the applicant if additional information is necessary to determine compliance with this Section. The applicant shall have 30 calendar days from the date of such notice to submit the required information to the Division. If the as-built package is complete, then within 40 days after receipt of the as-built package or 30 days after completion of a site inspection that has been rescheduled at the request of the applicant, whichever date is later, the Division shall take any of the following actions:
 - (a) Issue the final permit pursuant to Rule .1040 of this Section;
 - (b) Draft a permit with special conditions in accordance with Item (6) of this Rule;
 - (c) Initiate compliance and enforcement action in accordance with G.S. 143, Article 21; or
 - (d) Deny the permit pursuant to Rule .1040 of this Section.
- (6) PERMIT WITH SPECIAL CONDITIONS. If the Division determines that the stormwater plan has only minor deviations from the MDC, then it shall draft a permit with special conditions to bring the project into compliance with the MDC. The Division shall provide the applicant with a draft of the proposed permit and the applicant shall have 10 days to submit comments or concerns back to the Division. After the draft permit is reviewed by the applicant, the Division shall issue a final permit with special conditions that includes the following:
 - (a) a list of corrections to be made to the stormwater plan to bring the project into compliance with the MDC; and
 - (b) a proposed schedule of compliance for meeting the MDC.
- (7) COMPLIANCE. Applicants who fail to comply with the requirements of this Rule may be subject to enforcement action as set forth in G.S. 143-215.3.
- (8) EXCEPTIONS TO ABOVE TIMEFRAMES. If the Division fails to act within the timelines specified in Item (5) of this Rule, the project shall be considered to be approved unless:
 - (a) the applicant does not agree to the inspection date proposed by the Division pursuant to Sub-item (4)(a) of this Rule.
 - (b) the applicant agrees, in writing, to a longer period;
 - (c) the final decision is to be made pursuant to a public notice or hearing;
 - (d) the applicant fails to furnish information necessary for the Division's decision; or

- (e) the applicant refuses the staff access to its records or premises for the purpose of gathering information necessary for the Division's decision.

Authority 143-214.7; 143-214.7B; 143-215.1; 143-215.6A; 143-215.6B; 143-215.6C; S.L 2013-82.

15A NCAC 02H .1045 REQUIREMENTS FOR PERMIT TRANSFERS AND PERMIT RENEWALS

This Rule contains the requirements for the transfer and renewal of State stormwater management permits that have been issued by the Division, including those issued under the standard and fast-track permitting processes.

- (1) CONDITIONS UNDER WHICH A PERMIT MAY BE TRANSFERRED. Permit transfer applications shall be accepted by the Division under the following scenarios:
 - (a) upon the request of the current and proposed permittees;
 - (b) upon the request of a permitted declarant of a condominium or planned community to the unit owners association, owners association, or other management entity identified in the condominium or planned community's declaration in accordance with G.S. 143-214.7(c2); or
 - (c) upon the request for a transfer without the consent of the permit holder to a successor-owner of the property on which the permitted activity is occurring or will occur as provided in G.S. 143-214.7(c5).
- (2) PERMIT TRANSFER APPLICATION SUBMITTAL REQUIREMENTS. The applicant shall submit a permit application fee in accordance with G.S. 143-215.3D and two hard copies and one electronic copy of each of the following:
 - (a) A completed and signed Permit Transfer Application Form. This form can be obtained on the Division's website at <http://portal.ncdenr.org/web/lr/stormwater> and shall include the following information:
 - (i) current stormwater permit number;
 - (ii) current project name;
 - (iii) current permittee name and contact information; and
 - (iv) proposed permittee name and contact information.
 - (b) When the applicant is a corporation or limited liability corporation (LLC):
 - (i) Documentation showing the corporation or LLC is an active corporation in good standing with the NC Secretary of State; and
 - (ii) Documentation from the NC Secretary of State or other official documentation, showing the titles and positions held by the person who signed the application pursuant to Rule .1040 of this Section;
 - (c) Legal documentation of the property transfer to a new owner;
 - (d) A copy of a signed and notarized operation and maintenance agreement;
 - (e) A copy of the recorded deed restrictions and protective covenants where required. If the project has been built, documentation that the maximum allowed per lot built-upon area or the maximum allowed total built-upon area has not been exceeded;
 - (f) If the project has been built, signed, sealed, and dated letter from a licensed professional stating that the stormwater management system has been inspected and that it has been built and maintained in accordance with the approved plans; and
 - (g) A copy of the recorded deed restrictions and protective covenants, where required by the permit. If the project has not been built, the new owner shall provide a signed agreement to submit final recorded deed restrictions and protective covenants.
- (3) PERMIT RENEWAL APPLICATION SUBMITTAL REQUIREMENTS. Permittees shall submit a permit renewal application to the Division a minimum of 180 days prior to the permit's expiration date. The applicant shall submit a permit application fee in accordance with G.S. 143-215.3D and two hard copies and one digital copy of each of the following:
 - (a) A completed and signed Permit Renewal Application Form. This form can be obtained on the Division's website at <http://portal.ncdenr.org/web/lr/stormwater> and shall include the following information:
 - (i) project name and stormwater permit number;
 - (ii) permittee name and contact information;
 - (iii) owner name, title, and contact information;
 - (iv) information about the physical location of project;
 - (v) description of SCMs used on the project; and
 - (vi) if applicable, description of any changes made to the project as permitted.
 - (b) When the applicant is a corporation or limited liability corporation (LLC):
 - (i) Documentation showing the corporation of LLC is an active corporation in good standing with the NC Secretary of State; and
 - (ii) Documentation from the NC Secretary of State or other official documentation, showing the titles and positions held by the person who signed the application pursuant to Rule .1040 of this Section.
 - (c) Documentation that the maximum allowed per lot built-upon area or the maximum allowed total built-upon area has not been exceeded;
 - (d) A signed, sealed, and dated letter from a licensed professional stating that the stormwater management system has been inspected and that it has been built and maintained in accordance with the approved plans;
 - (e) A copy of the current signed and notarized operation and maintenance agreement where required by the permit;
 - (f) A copy of the recorded deed restrictions and protective covenants, where required by permit; and

- (g) If the project is out of compliance with permit conditions, a written schedule of actions to bring the project into compliance.
 - (4) DIVISION REVIEW OF APPLICATIONS. The Division shall follow these procedures in reviewing and approving applications for permit transfers and renewals.
 - (a) The Division shall take one of the following actions upon receipt of the application:
 - (i) Notify the applicant that additional information is necessary for the Division to determine whether the project complies with this Section. The Division shall provide a list of the additional information required. The applicant shall have 30 calendar days from the date the letter was sent to submit the additional information to the Division;
 - (ii) Return the application if the required information listed in Items (2) or (3) of this Rule is not provided or if information the Division has requested per Sub-item (i) of Sub-item (4)(a) is not provided. In this case, the application shall be deemed denied, and the applicant shall be required to resubmit a complete application with a new application fee; or
 - (iii) Issue an updated permit in accordance with this Section if the application is complete and the project is in compliance with its permit conditions and approved plans.
 - (b) The Division may conduct investigations about the project when the information provided appears to be inadequate or incorrect. The applicant shall allow the Division safe access to the records, lands, and facilities of the applicant. The Division may conduct any inquiry or investigation it considers necessary before acting on an application and may require an applicant to submit plans, specifications, and other information the Division considers necessary to evaluate the application.
 - (c) If the Division fails to act within the response times set forth by G.S. 143-215.1, then the application shall be considered approved unless:
 - (i) The applicant agrees, in writing, to a longer period;
 - (ii) The project being transferred or renewed is out of compliance with the stormwater permit;
 - (iii) A public notice or public hearing is required by the Director;
 - (iv) The applicant fails to furnish information necessary for the Division's decision in accordance with this Rule; or
 - (v) The applicant refuses the staff access to its records or premises for the purpose of gathering information necessary for the Division's decision.

Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a).

15A NCAC 02H .1050 MDC FOR ALL STORMWATER CONTROL MEASURES

The purpose of this Rule is to set forth the design requirements for all Stormwater Control Measures (SCMs) that are constructed to meet the requirements of this Section. These Minimum Design Criteria (MDC) are required for every SCM. SCMs are also required to adhere to the MDC associated with the specific type of SCM being implemented.

- (1) SIZING. The design volume of SCMs shall take into account the runoff at build out from all surfaces draining to the system. Drainage from off-site areas may be bypassed. The combined design volume of all SCMs on the project shall be sufficient to handle the required treatment volume.
- (2) SEASONAL HIGH WATER TABLE (SHWT). SCMs shall not include an outlet structure that is more than 6" below the SHWT elevation unless it can be demonstrated that the device will not dewater waters of the State and that the treatment volume of the SCM will not be compromised by groundwater inflow.
- (3) CONTAMINATED SOILS. SCMs that allow stormwater to infiltrate shall not be located on or in areas with contaminated soils.
- (4) SIDE SLOPES. Side slopes of SCMs stabilized with vegetated cover shall be no steeper than 3:1 (horizontal to vertical). Retaining walls, gabion walls, and other engineered surfaces may be steeper than 3:1. Steeper vegetated slopes may be considered on a case-by-case basis if the applicant demonstrates that the soils and vegetation shall remain stable.
- (5) EROSION PROTECTION. The inlets and outlets of SCMs shall be protected from erosion resulting from stormwater discharges.
- (6) EXCESS FLOWS. SCMs shall include an overflow or bypass device for inflow volumes in excess of the treatment volume, or, if applicable, the peak attenuation volume.
- (7) DEWATERING. SCMs shall have a method to draw down any standing water to facilitate maintenance and inspection.
- (8) CLEAN OUT AFTER CONSTRUCTION. Every SCM impacted by sedimentation and erosion control during the construction phase shall be cleaned out and converted to its approved design state.
- (9) MAINTENANCE ACCESS. Every SCM installed pursuant to this Section shall be made accessible for maintenance and repair. Maintenance accesses shall:
 - (a) have a minimum width of ten feet;
 - (b) not include lateral or incline slopes that exceed 3:1 (horizontal to vertical); and
 - (c) extend to the nearest public right-of-way.
- (10) EASEMENTS. All SCMs and associated maintenance accesses on privately owned land except for those located on single family residential lots shall be located in recorded easements. The SCM shall be shown and labeled within the easement. These easements shall be granted in favor of the party responsible for enforcing the stormwater program under which the SCMs were approved.

- (11) SINGLE FAMILY RESIDENTIAL LOTS. Plats for residential lots that contain an SCM shall include:
 - (a) the specific location of the SCM on the lot;
 - (b) a typical detail for SCM to be used; and
 - (c) a note that the SCM on the property has been required to meet stormwater regulations and that the property owner may be subject to enforcement actions if the SCM is removed, relocated, or altered without prior approval.
- (12) OPERATION AND MAINTENANCE AGREEMENT. The owner of the SCMs shall enter into a binding Operation and Maintenance (O&M) Agreement with the party responsible for implementing the stormwater program under which the SCMs were approved. The O&M Agreement shall require the owner to maintain, repair, or reconstruct the SCMs in accordance with the approved design plans and the O&M Plan. The O&M Agreement shall be referenced on the final plat and shall be recorded with the county Register of Deeds upon final plat approval. If no subdivision plat is recorded for the site, then the O&M Agreement shall be recorded with the county Register of Deeds so as to appear in the chain of title of all subsequent purchasers.
- (13) OPERATION AND MAINTENANCE PLAN. There shall be an O&M Plan for every project subject to this Section. The O&M Plan shall specify all operation and maintenance work necessary for the function of all SCM components, including the stormwater conveyance system, perimeter of the device, inlet(s), pretreatment measures, main treatment area, outlet, vegetation, and discharge point. The O&M plan shall specify methods to be used to maintain or restore the SCMs to design specifications in the event of failure. O&M plans shall be signed and notarized. The owner shall keep maintenance records and these shall be available upon request by the party responsible for enforcing the stormwater program under which the SCMs were approved.
- (14) SCM SPECIFIC MINIMUM DESIGN CRITERIA (MDC). Every SCM shall follow the applicable device specific MDC pursuant to Rules .1051 through .1062 of this Section.
- (15) LICENSED PROFESSIONAL. SCMs shall be designed by an individual who meets the North Carolina licensing requirements for the type of system proposed.

Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a).

15A NCAC 02H .1051 MDC FOR INFILTRATION SYSTEMS

The purpose of this Rule is to set forth the design requirements for infiltration systems that are constructed to meet the requirements of this Section.

- (1) SOIL INVESTIGATION. A site-specific soil investigation shall be performed by a licensed professional to establish the hydraulic properties and characteristics of the soil within the proposed footprint and at the proposed elevation of the infiltration system.
- (2) SEPARATION FROM THE SHWT. The lowest point of the infiltration system shall be a minimum of two feet above the SHWT. However, the separation may be reduced to no less than one foot if the applicant provides a hydrogeologic evaluation prepared by a licensed professional that demonstrates that the water table will subside to its pre-storm elevation within five days or less.
- (3) SOIL SUBGRADE SURFACE. The surface of the soil subgrade shall have a slope of less than or equal to two percent. Terraces and baffles may be installed to achieve a level subgrade.
- (4) PRETREATMENT. Pretreatment devices shall be provided to prevent clogging. Pretreatment devices may include measures such as sumps in catch basins, gravel verges, screens on roof and patio drains, filters, filter strips, grassed swales, and forebays. Rooftop runoff that is discharged to the surface of an infiltration system shall not require pretreatment.
- (5) DRAW DOWN TIME. Infiltration systems shall be designed to dewater the design volume to the bottom of the infiltration device within 72 hours or less. In-situ soils may be removed and replaced with infiltration media or infiltration media may be placed on top of in-situ soils if the applicant provides a soils report prepared by a licensed professional that demonstrates that the modified soil profile allows for infiltration of the design volume within 72 hours or less.
- (6) OBSERVATION PORT. For infiltration devices located under the ground surface, a minimum of one inspection port shall be provided.

Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a).

15A NCAC 02H .1052 MDC FOR BIORETENTION CELLS

The purpose of this Rule is to set forth the design requirements for bioretention cells that are constructed to meet the requirements of this Section.

- (1) SEPARATION FROM THE SHWT. The lowest point of the bioretention cell shall be a minimum of two feet above the SHWT. However, the separation may be reduced to no less than one foot if the applicant provides a hydrogeologic evaluation prepared by a licensed professional.
- (2) MAXIMUM PONDING DEPTH FOR DESIGN VOLUME. The maximum ponding depth for the design volume shall be 12 inches above the planting surface.
- (3) PEAK ATTENUATION VOLUME. Bioretention cells may store peak attenuation volume at a depth of up to 24 inches above the planting surface. The peak attenuation outlet shall be a maximum of 18 inches above the planting surface.

- (4) UNDERDRAIN. An underdrain with internal water storage shall be installed unless a licensed professional demonstrates that the in-situ soil infiltration rate is two inches per hour or greater immediately prior to the initial placement of the media. The top of the internal water storage zone shall be set at a minimum of 18 inches below the planting surface.
- (5) MEDIA DEPTH. The minimum depth of the media depends on the design of the cell as follows:
 - (a) all cells with trees and shrubs: 36 inches;
 - (b) cells without trees and shrubs:
 - (i) with no internal water storage: 24 inches; or
 - (iii) with internal water storage: 30 inches.
- (6) MEDIA MIX. The media shall be a homogeneous soil mix with approximate volumes of: 75 to 85 percent medium to coarse washed sand (ASTM C33 or the equivalent,) 10 percent fines (silt and clay), and 5 to 10 percent organic matter (such as pine bark fines).
- (7) MEDIA P-INDEX. The phosphorus index (P-index) for the media shall not exceed 30 in NSW waters as defined in 15A NCAC 02B .0202 and shall not exceed 50 elsewhere.
- (8) NO MECHANICAL COMPACTION. The media shall not be mechanically compacted. It is recommended to either water it or walk on it as it is placed.
- (9) MAINTENANCE OF MEDIA. The bioretention cell shall be maintained in a manner that results in a drawdown of at least one inch per hour at the planting surface.
- (10) PLANTING PLAN. For bioretention cells with vegetation other than sod, the planting plan shall be designed to achieve a minimum of 75 percent plant coverage at five years after planting. The maximum coverage with tree or shrub canopy shall be 50 percent at five years after planting. If sod is used, then it shall be a non-clumping, deep-rooted species.
- (11) MULCH. For bioretention cells with vegetation other than sod, triple shredded hardwood mulch shall be used for the portion of the cell that will be inundated. Mulch shall be uniformly placed two to four inches deep.
- (12) CLEAN-OUT PIPES. A minimum of one clean-out pipe shall be provided on each underdrain line. Clean out pipes shall be capped.

Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a).

15A NCAC 02H .1053 MDC FOR WET PONDS

The purpose of this Rule is to set forth the design requirements for wet ponds that are constructed to meet the requirements of this Section.

- (1) MAIN POOL SURFACE AREA AND VOLUME. The main pool of the wet pond shall be sized using either:
 - (a) the Hydraulic Retention Time (HRT) Method; or
 - (b) the SA/DA and Average Depth Method.
- (2) MAIN POOL DEPTH. The average depth of the main pool shall be three to eight feet below the permanent pool elevation. Any portion of the vegetated shelf that is submerged may be excluded from the calculation of average depth.
- (3) LOCATION OF INLET(S) AND OUTLET. The inlet(s) and outlet shall be located in a manner that avoids short circuiting.
- (4) FOREBAY. A forebay that meets the following specifications shall be included:
 - (a) Forebay volume shall be 15 to 20 percent of the volume in the main pool;
 - (b) The forebay shall be 40 to 60 inches in depth with respect to the permanent pool;
 - (c) The forebay entrance shall be deeper than the forebay exit;
 - (d) The water flowing over or through the structure that separates the forebay from the main pool shall flow at a nonerosive velocity; and
 - (e) If sediment accumulates in the forebay in a manner that reduces its depth to 30 inches, then the forebay shall be cleaned out and returned to its design state.
- (5) VEGETATED SHELF. The main pool shall be equipped with a vegetative shelf around its perimeter. The minimum width of the vegetated shelf shall be six feet and the slope shall be no steeper than 6:1 (horizontal to vertical).
- (6) DRAWDOWN TIME. The treatment volume shall draw down to the permanent pool level between two and five days.
- (7) PROTECTION OF THE RECEIVING STREAM. The wet pond shall discharge the runoff from the one-year, 24-hour storm in a manner that minimizes hydrologic impacts to the receiving channel.
- (8) FOUNTAINS. If fountains are proposed, then a licensed professional shall provide documentation that they will not cause a resuspension of sediment within the pond, or cause erosion on the side slopes of the pond.
- (9) TRASH RACK. A trash rack or other device shall be provided to prevent large debris from entering the outlet system.
- (10) VEGETATION. The following criteria apply to vegetation in and around the wet pond:
 - (a) The dam structure and fill material around the perimeter of the pond shall be vegetated with non-clumping turf grass; trees and woody shrubs shall not be allowed; and
 - (b) The vegetated shelf shall be vegetated with a minimum of three diverse species of herbaceous, native vegetation, and a minimum of 50 plants per 200 square feet of shelf area shall be planted.

Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a).

15A NCAC 02H .1054 MDC FOR STORMWATER WETLANDS

The purpose of this Rule is to set forth the design requirements for stormwater wetlands that are constructed to meet the requirements of this Section.

- (1) TEMPORARY PONDING DEPTH. The ponding depth for the design volume shall be a maximum of 15 inches above the permanent pool.
- (2) PEAK ATTENUATION DEPTH. The wetland may be designed to temporarily pond peak attenuation volume at a depth exceeding 15 inches.
- (3) SURFACE AREA. The surface area shall be sufficient to limit the ponding depth to 15 inches or less. The surface area specifications in Items (6) through (9) of this Rule are based on the wetland at its temporary ponding depth.
- (4) SOIL AMENDMENTS. The pH, compaction, and other attributes of the first 12-inch depth of the soil shall be adjusted if necessary to promote plant establishment and growth.
- (5) LOCATION OF INLET(S) AND OUTLET. The inlet(s) and outlet shall be located in a manner that avoids short circuiting.
- (6) FOREBAY. A forebay shall be provided at the inlet to the stormwater wetland. The forebay shall comprise 10 to 15 percent of the wetland surface area. The forebay depth shall be 24 to 40 inches below the permanent pool elevation. The forebay entrance shall be deeper than the forebay exit. If sediment accumulates in the forebay in a manner that reduces its depth to 15 inches, then the forebay shall be cleaned out and returned to its design state.
- (7) NON-FOREBAY DEEP POOLS. Deep pools shall be provided throughout the wetland and adjacent to the outlet structure to prevent clogging. The non-forebay deep pools shall comprise 5 to 15 percent of the wetland surface area and shall be designed to retain water between storm events. The deep pools at their deepest points shall be at least 18 inches below the permanent pool elevation.
- (8) SHALLOW WATER ZONE. The shallow water zone shall comprise 35 to 45 percent of the wetland surface area. The shallow water zone shall be zero to nine inches below the permanent pool elevation.
- (9) TEMPORARY INUNDATION ZONE. The temporary inundation zone shall comprise 30 to 45 percent of the wetland surface area. The temporary inundation zone shall be between 0 and 15 inches above the permanent pool elevation.
- (10) DRAWDOWN TIME. The treatment volume shall draw down to the permanent pool level between two and five days.
- (11) PROTECTION OF THE RECEIVING STREAM. The wetland shall discharge the runoff from the one-year, 24-hour storm in a manner that minimizes hydrologic impacts to the receiving channel.
- (12) LANDSCAPING PLAN. A landscape plan prepared by a licensed professional shall be provided and shall include the following: total number and sizes of all plant species.
- (13) SHALLOW WATER PLANTINGS. The shallow water zone shall be planted at a minimum density of 50 herbaceous plants per 200 square feet (equivalent to 2 foot on center spacing).
- (14) TEMPORARY INUNDATION ZONE PLANTINGS. The temporary inundation zone shall be planted according to one of the following options:
 - (a) 50 herbaceous plants per 200 square feet (equivalent to 2 foot on center spacing);
 - (b) eight shrubs per 200 square feet (equivalent to 5 foot on center spacing); or
 - (c) one tree and 40 grass-like herbaceous plants per 100 square feet.
- (15) DAM STRUCTURE AND PERIMETER FILL SLOPES. On the dam structure and perimeter fill slopes, non-clumping turf grass shall be provided, and trees and woody shrubs shall not be allowed.
- (16) NO CATTAILS. Cattails shall not be planted in the wetland.
- (17) TRASH RACK. A trash rack or other device to trap debris shall be provided on piped outlet structures.

Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a).

15A NCAC 02H .1055 MDC FOR PERMEABLE PAVEMENT

The purpose of this Rule is to set forth the design requirements for permeable pavement systems that are constructed to meet the requirements of this Section.

- (1) SOIL INVESTIGATION. For infiltrating pavement systems, site-specific soil investigation shall be performed by a licensed professional to establish the hydraulic properties and characteristics within the proposed footprint and at the proposed elevation of the permeable pavement system.
- (2) SHWT REQUIREMENTS. The minimum separation between the lowest point of the subgrade surface and the SHWT shall be:
 - (a) two feet for infiltrating pavement systems; however, the separation can be reduced to a minimum of one foot if the applicant provides a soils report prepared by a licensed professional that demonstrates that the modified soil profile allows for infiltration of the design volume within 72 hours; and
 - (b) one foot for detention pavement systems.
- (3) SITING. Permeable pavement shall not be installed in areas where toxic pollutants are stored or handled.
- (4) SOIL SUBGRADE SLOPE. The soil subgrade surface shall have a slope of less than or equal to two percent.
- (5) STONE BASE. Washed aggregate base materials shall be used.
- (6) PAVEMENT SURFACE. The proposed pavement surface shall have a demonstrated infiltration rate of at least 50 inches per hour using a head less than or equal to 4 inches.
- (7) RUNOFF FROM ADJACENT AREAS. Runoff to the permeable pavement from adjacent areas shall meet these requirements:

- (a) The maximum ratio of additional built-upon area that may drain to permeable pavement is 1:1. Screened rooftop runoff shall not be subject to the 1:1 loading limitation.
- (b) Runoff from adjacent pervious areas shall be prevented from reaching the permeable pavement except for incidental, unavoidable runoff from stable vegetated areas.
- (8) DRAW DOWN TIME. Infiltrating permeable pavement systems shall be designed to dewater the design volume to the bottom of the subgrade surface within 72 hours. In-situ soils may be removed and replaced with infiltration media or infiltration media may be placed on top of in-situ soils if the applicant provides a soils report prepared by a licensed professional that demonstrates that the modified soil profile allows for infiltration of the design volume within 72 hours.
- (9) OBSERVATION WELL. Permeable pavement shall be equipped with a minimum of one observation well placed at the low point in the system. If the subgrade is terraced, then there shall be one observation well for each terrace. Observation wells shall be capped.
- (10) DETENTION SYSTEMS. Pavement systems may be designed to detain stormwater in the aggregate for a period of two to five days.
- (11) EDGE RESTRAINTS. Edge restraints shall be provided around the perimeter of permeable interlocking concrete pavers (PICP) and grid pavers.
- (12) GRADE WHEN DRY. The soil subgrade for infiltrating permeable pavement shall be graded when there is no precipitation.
- (13) INSPECTIONS AND CERTIFICATION. After installation, permeable pavement shall be protected from sediment deposition until the site is completed and stabilized. An in-situ infiltration permeability test shall be conducted and certified by a licensed professional on the pavement after site stabilization.

Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a);

15A NCAC 02H .1056 MDC FOR SAND FILTERS

The purpose of this Rule is to set forth the design requirements sand filters that are constructed to meet the requirements of a State post-construction stormwater program.

- (1) SHWT SEPARATION. The minimum separation between the lowest point of the sand filter system and the SHWT shall be:
 - (a) two feet for open-bottom designs; and
 - (b) one foot for closed bottom designs. Exceptions to the one foot SHWT separation may be made if a licensed professional provides documentation that the design will neither float nor drain the water table.
- (2) TWO CHAMBER SYSTEM. The sand filter shall include a sediment chamber and a sand chamber. It is recommended to provide equivalent storage volume in each chamber.
- (3) SEDIMENT/SAND CHAMBER SIZING. The volume of water that can be stored in the sediment chamber and the sand chamber above the sand surface combined shall be 0.75 times the treatment volume. The elevation of bypass devices shall be set above the ponding depth associated with this volume. The bypass device may be designed to attenuate peak flows.
- (4) MAXIMUM PONDING DEPTH. The maximum ponding depth from the top of the sand to the bypass device shall be six feet.
- (5) FLOW DISTRIBUTION. Incoming stormwater shall be evenly distributed over the surface of the sand chamber.
- (6) SAND MEDIA SPECIFICATION. Sand media shall meet ASTM C33 or the equivalent.
- (7) MEDIA DEPTH. The filter bed shall have a minimum depth of 18 inches. The minimum depth of sand above the underdrain pipe shall be 12 inches.
- (8) MAINTENANCE OF MEDIA. The sand filter shall be maintained in a manner that results in a drawdown of at least two inches per hour at the sand surface.
- (9) CLEAN-OUT PIPES. At least one clean-out pipe shall be provided at the low point of each underdrain line. Clean out pipes shall be capped.

Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a).

15A NCAC 02H .1057 MDC FOR RAINWATER HARVESTING

The purpose of this Rule is to set forth the design requirements for rainwater harvesting systems that are constructed to meet the requirements of this Section.

- (1) MAJOR COMPONENTS OF A RAINWATER HARVESTING SYSTEM. Rainwater harvesting systems shall include the following components:
 - (a) a collection system;
 - (b) a pre-treatment device to minimize gross and coarse solids collection in the tank;
 - (c) a cistern or other storage device;
 - (d) an overflow; and
 - (e) a distribution system.
- (2) FATE OF CAPTURED WATER. Captured stormwater shall be used or discharged as follows:
 - (a) use to meet a water demand. The usage, type, volume, frequency, and seasonality of water demand shall be established and justified;
 - (b) discharge via a passive drawdown device to a vegetated infiltration area or another SCM; or

- (c) a combination of use and passive discharge.
- (3) SIZING. A rainwater harvesting system shall be considered as a primary SCM if the system is sized and water demand, passive discharge or a combination of the two is provided for 86 percent of the total annual runoff volume as demonstrated through water balance calculations.
- (4) WATER BALANCE CALCULATIONS. The water balance shall be calculated using the NCSU Rainwater Harvester model or another continuous-simulation hydrologic model that calculates the water balance on a daily or more frequent time-step using a minimum of five representative years of actual rainfall records. The model shall account for withdrawals from the cistern for use, active or passive drawdown, and additions to the cistern by rainfall, runoff and a make-up water source if applicable.
- (5) DISTRIBUTION SYSTEM. The distribution system shall be tested for functionality prior to the completion of the rainwater harvesting system. The design shall include a protocol for testing the functionality of the distribution system upon completion of the initial system and upon additions to the existing system.
- (6) SIGNAGE REQUIREMENTS. All harvested rainwater outlets such as spigots and hose bibs, and appurtenances shall be labeled as "Non-Potable Water" to warn the public and others that the water is not intended for drinking. Passive drawdown devices, when employed, shall be marked with identifying signage or labels that are visible to owners and maintenance personnel.

Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a).

15A NCAC 02H .1058 MDC FOR GREEN ROOFS

The purpose of this Rule is to set forth the design requirements for green roofs that are constructed to meet the requirements of this Section.

- (1) MEDIA SPECIFICATION. The maximum organic fraction of the media shall be ten percent by volume.
- (2) DESIGN VOLUME. The design volume for a green roof shall equal the media depth times the plant available water (PAW). The maximum rainfall depth that may be treated by a green roof is 1.5 inches.
- (3) MINIMUM MEDIA DEPTH. The minimum media depth shall be four inches if the roof will not be irrigated or three inches if the roof will be irrigated. For roofs with three-inch media depths, an irrigation plan shall be included in the Operation and Maintenance Plan.
- (4) VEGETATION SPECIFICATION. The planting plan shall be designed to achieve a 75 percent vegetative cover within two years.
- (5) SLOPE. The green roof shall have a slope (or pitch) of no greater than eight percent, unless a container system designed for a greater slope is used.

Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a).

15A NCAC 02H .1059 MDC FOR LEVEL SPREADER-FILTER STRIPS

The purpose of this Rule is to set forth the design requirements for level spreader-filter strips that are constructed to meet the requirements of this Section.

- (1) LEVEL SPREADER LENGTH. The level spreader shall be a minimum of 10 feet in length per one cubic foot per second of stormwater flow that is directed to it.
- (2) REQUIRED STORM INTENSITY AND BYPASS. The required storm intensity and bypass system shall be based on the source of the stormwater:
 - (a) A level spreader that receives flow directly from the drainage area shall be sized based on the flow rate during the 0.75 inch per hour storm, with a flow bypass system for larger storm events; or
 - (b) A level spreader that receives flow from an SCM shall be sized based on the draw down rate of the design volume, with a flow bypass for larger storm events.
- (3) EXCEPTION FROM FLOW BYPASS REQUIREMENT. A flow bypass system is not needed if the level spreader is sized to handle the flow during 10-year storm event.
- (4) BLIND SWALE. Immediately upslope of the level spreader, there shall be a blind swale or other method of ponding water. The blind swale shall be designed to provide for uniform overtopping of the level spreader.
- (5) LEVEL SPREADER SPECIFICATIONS. The lip of the level spreader shall be at a uniform elevation with a construction tolerance of plus or minus 0.25 inch at any point along its length. The level spreader shall be constructed of concrete or other stable material.
- (6) LEVEL SPREADER SHAPE. The level spreader shall be straight or convex in plan view.
- (7) TRANSITION ZONE. Immediately downslope of the level spreader, there shall be a one to three inch drop followed by a transition zone that is protected from erosion via aggregate or high performance turf reinforcement matting. The transition zone shall be a minimum of 12 inches wide.
- (8) MINIMUM WIDTH OF THE FILTER STRIP. The minimum width of the filter strip shall be 30 feet, measured perpendicular to the level spreader lip.
- (9) NO DRAWS OR CHANNELS IN THE FILTER STRIP. The filter strip shall not contain draws or channels.
- (10) FILTER STRIP SPECIFICATIONS. The following specifications shall apply to the filter strip:
 - (a) Filter strips shall be graded with a uniform transverse slope of eight percent or less;
 - (b) The pH, compaction, and other attributes of the first 12 inches of the soil shall be adjusted if necessary to promote plant establishment and growth;
 - (c) The filter strip and side slopes shall be planted with non-clumping, deep-rooted grass sod; and

- (d) Soils shall be stabilized with temporary means such as straw or matting until the permanent vegetative cover has taken root or the runoff shall be directed elsewhere until vegetation has established.

Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a).

15A NCAC 02H .1060 MDC FOR DISCONNECTED IMPERVIOUS SURFACES

The purpose of this Rule is to set forth the design requirements for disconnected impervious surfaces that are constructed to meet the requirements of this Section.

- (1) VEGETATED RECEIVING AREA FOR DISCONNECTED ROOFS. The following requirements shall apply to vegetated receiving areas for disconnected roofs:
 - (a) A maximum of 500 square feet of roof shall drain to each disconnected downspout;
 - (b) The receiving vegetated area shall be a rectangular shape. The length of the rectangle in the direction of flow shall be a minimum of 0.04 times the area of the roof that drains to it. The width of the rectangle shall be one-half the length of the rectangle.
 - (c) The downspout shall discharge in the center of upslope end of the vegetated receiving area;
 - (d) The downspout shall be equipped with a splash pad; and
 - (e) The vegetated receiving area shall not include any built-upon area.
- (2) VEGETATED RECEIVING AREA FOR DISCONNECTED PAVEMENT. The following requirements shall apply to the vegetated receiving area for disconnected pavement:
 - (a) The pavement draining to the vegetated receiving area shall be a maximum of 100 feet in length in the direction of flow;
 - (b) The vegetated receiving area shall be a minimum of 10 feet in length in the direction of flow; and
 - (c) The vegetated receiving area shall not contain any built-upon area except for incidental areas such as utility boxes, signs and lamp posts.
- (3) VEGETATED RECEIVING AREA SPECIFICATIONS. The following specifications shall apply to the vegetated receiving areas for both disconnected roofs and disconnected pavement:
 - (a) Vegetated receiving areas shall have a uniform transverse slope of 8 percent or less, except in Hydrologic Soil Group A soils where slope shall be 15 percent or less;
 - (b) The pH, compaction, and other attributes of the first eight inches of the soil shall be adjusted if necessary to promote plant establishment and growth;
 - (c) The vegetated receiving area shall be planted with a non-clumping, deep-rooted grass species; and
 - (d) Soils shall be stabilized with temporary means such as straw or matting until the permanent vegetative cover has taken root or the runoff shall be directed elsewhere until vegetation has established.

Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a).

15A NCAC 02H .1061 MDC FOR TREATMENT SWALES

The purpose of this Rule is to set forth the design requirements for treatment swales that are constructed to meet the requirements of this Section.

- (1) SHWT. Swales shall not be excavated below the SHWT.
- (2) SHAPE. Swales shall be trapezoidal in cross-section with a maximum bottom width of six feet. Side slopes stabilized with vegetative cover shall be no steeper than 3:1 (horizontal to vertical). Steeper vegetated slopes may be considered on a case-by-case basis provided that it is demonstrated that the soils and vegetation will remain stable in perpetuity.
- (3) SWALE SLOPE AND LENGTH. The longitudinal swale slope shall not exceed seven percent. The swale slope and length shall be designed to achieve a flow depth of six inches or less during the 0.75 inch per hour storm and a minimum hydraulic retention time of four minutes.
- (4) GRASS SPECIFICATION. The grass species in the swale shall be:
 - (a) non-clumping and deep-rooted;
 - (b) able to withstand a velocity of four feet per second;
 - (c) managed at an average of six inches; and
 - (d) not be cut lower than four inches.
- (5) CONVEYANCE OF LARGER STORMS. Swales shall be designed to non-erosively pass the ten-year storm.

Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a).

15A NCAC 02H .1062 MDC FOR DRY PONDS

The purpose of this Rule is to set forth the design requirements for dry ponds that are constructed to meet the requirements of this Section.

- (1) SEPARATION FROM THE SHWT. The lowest point of the dry pond shall be a minimum of six inches above the SHWT.
- (2) TEMPORARY POOL DEPTH. The maximum depth of the temporary pool shall be 10 feet.
- (3) UNIFORM GRADING AND POSITIVE DRAINAGE. The bottom of the dry pond shall be graded uniformly to flow toward the outlet structure without low or high spots other than an optional low flow channel.
- (4) LOCATION OF INLET(S) AND OUTLET. The inlet(s) and outlet shall be located in a manner that avoids short circuiting.

- (5) PRETREATMENT. Pretreatment devices shall be provided to settle sediment and prevent erosion. Pretreatment devices may include measures such as gravel verges, filter strips, grassed swales, and forebays.
- (6) DRAWDOWN TIME. The design volume shall draw down between two and five days.
- (7) PROTECTION OF THE RECEIVING STREAM. The dry pond shall discharge the runoff from the one-year, 24-hour storm in a manner that minimizes hydrologic impacts to the receiving channel.
- (8) OUTLET. The dry pond shall include a small permanent pool near the outlet orifice to reduce clogging and keep floating debris away from the orifice. A screen or other device shall be provided to prevent large debris from entering the outlet system.
- (9) VEGETATION. The dam structure and fill material around the perimeter of the pond shall be planted with non-clumping turf grass, and trees and woody shrubs shall not be allowed.

Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a).